U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

FINAL

Medford District Office — April 1984

Medford Grazing Management Program

Environmental Impact Statement

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

MEDFORD DISTRICT OFFICE
3040 Biddle Road
Medford, Oregon 97504

Dear Concerned Citizens:

Enclosed for your review and comment is the Medford Grazing Management Final Environmental Impact Statement (EIS). The statement analyzes the impacts that would result from four alternative livestock grazing management programs. The purpose of the statement is to present environmental, technical, economic and social information for use in the decisionmaking process.

The final EIS consists only of the comments and responses to the draft EIS and a listing of necessary text changes. Therefore, this final EIS must be used in conjunction with the earlier draft statement which was distributed to the public in October 1983.

This environmental impact statement is not the decision document but it does contain the proposed plan amendments and the summary from the draft EIS (which serves as a link between the two documents). The Oregon State Director shall approve the proposed Josephine and Jackson-Klamath plan amendments no earlier than 30 days after the Environmental Protection Agency publishes notice of receipt of the final EIS in the **Federal Register**; approval of the plan amendments will be subject to final action on any protest that may be filed. Protests must conform to the requirements of Title 43 of the Code of Federal Regulations, Subpart 1610.5-2 and be filed with the Director of the Bureau of Land Management. The approval of the plan amendments will be documented in a record of decision, as part of the Rangeland Program Summary which will be available to the public within five months. The decision may be to select one of the EIS alternatives intact, or to blend features from several alternatives that fall within the range of actions analyzed in the EIS. Significant impacts, alternatives, environmental preferences, economic, and technical considerations will be addressed in the Rangeland Program Summary.

If you wish to comment for the District Manager's consideration in development of the decision, please submit your comments to the District Manager by May 10, 1984. Your comments should be sent to:

District Manager
3040 Biddle Road
Medford, OR 97504

The Management Framework Plan Amendment decisions on the action to be taken will be based on the analysis contained in the EIS, any additional data available, public opinion, management feasibility, policy and legal constraints. The Rangeland Program Summary (which includes the final decision) will be released in the summer 1984.

Thank you for your interest in this environmental impact statement.

Sincerely yours,

Hugh R. Shera

Hugh R. Shera
District Manager

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Final Environmental Impact Statement

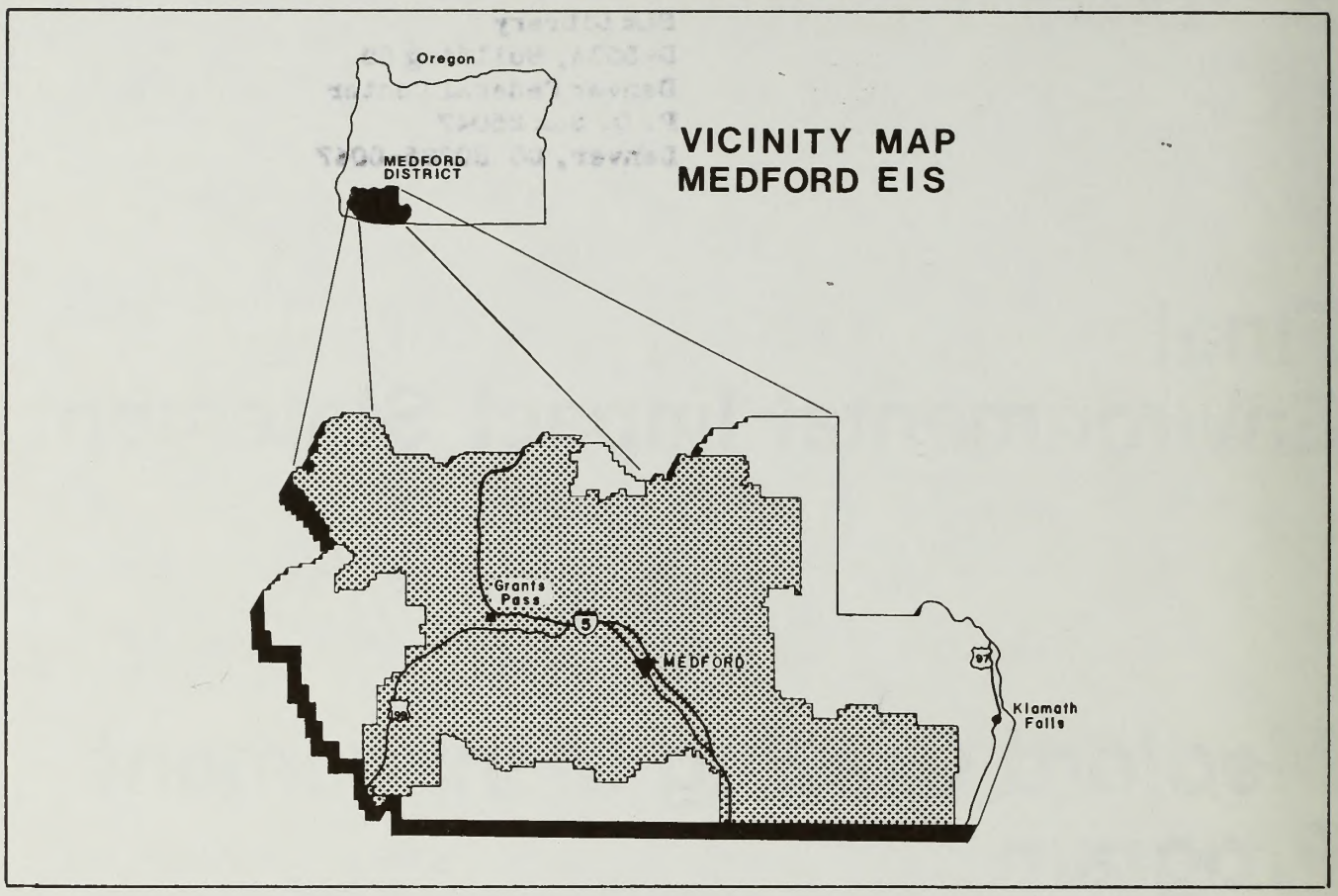
Medford Grazing Management Program

Prepared by

Bureau of Land Management
U.S. Department of the Interior
1984

State Director, Oregon State Office

MEDFORD PROPOSED GRAZING MANAGEMENT



Draft ( ) Final (x) Environmental Impact Statement
Department of the Interior, Bureau of Land Management

- **Type of Action: Administrative (x) Legislative ( )**

- **Abstract:** The Bureau of Land Management proposes to implement a livestock grazing management program on approximately 397,000 acres (109 allotments) of public land in southern Oregon. Unallotted status would continue on approximately 516,000 acres. Proposed alternatives include allocation of forage to livestock, wild horses, wildlife and nonconsumptive uses; establishment of grazing systems; and construction of range improvements.

- **Alternatives analyzed:**
- Alternative 1, No Action
- Alternative 2, Emphasize Livestock Grazing
- Alternative 3, Preferred Alternative
- Alternative 4, Emphasize Non-Livestock Values

Range condition would be maintained or improved under Alternatives 2, 3, and 4. Water quality would be improved under Alternatives 3 and 4. Deer, elk and upland game bird populations would be expected to increase under Alternatives 3 and 4. Long term increases in personal income and employment would occur under all Alternatives.

The Draft statement was made available to EPA and the Public in late September 1983, and a 90-day comment period was provided.

For further information contact: **Joseph Ross, EIS Team Leader**
Bureau of Land Management
Medford District Office
3040 Biddle Road
Medford, Oregon 97504
Telephone: (503) 776-4174

Table of Contents

Summary

This environmental impact statement (EIS) analyzes the impacts of implementing a livestock grazing management program in the Medford EIS area of the Medford District in southwest Oregon. Four alternatives developed through the Bureau planning system and the public scoping process are described and analyzed. The purpose of the proposed alternatives is to present and evaluate options for managing, protecting and enhancing rangeland resources.

The four alternatives and a summary of environmental consequences are described below. Table 1-1, in the text, summarizes the components of the alternatives. Table 1-2, in the text, presents a summary comparison of long-term impacts of the alternatives.

- **Alternative 1, No action -** Alternative 1 would be a continuation of the present grazing management program. Grazing permits would be issued at the 1982 active preference level of 22,496 AUMs. In addition, forage would be allocated in the short term to wildlife (53,182 AUMs), wild horses (250 AUMs), and nonconsumptive uses (56,615 AUMs). No additional range improvements would be developed.

- **Alternative 2, Emphasize Livestock Grazing -** Forage would be allocated in the short term to livestock (41,140 AUMs), wildlife (56,248 AUMs), wild horses (250 AUMs), and nonconsumptive uses (56,615 AUMs). Livestock grazing would be allowed throughout the 397,000-acres presently allotted, except where currently excluded (100 acres). Proposed range improvements include seedings (41,845 acres), brush control and hardwood removal (24,259 acres), fences (193 miles) and water developments (126 developments).

As a result of the proposed range improvements, forage production is expected to increase by 23,005 AUMs. For purposes of analysis, it is assumed that the long-term increase in forage production would be allocated to livestock (19,173 AUMs) and wildlife (3,832 AUMs).

- **Alternative 3, Preferred Alternative -** Grazing systems under Alternative 3 are designed to maintain or improve range and forage conditions to benefit wildlife, wild horses and livestock. Forage would be allocated in the short term to livestock (30,272 AUMs), wildlife (59,214 AUMs) and wild horses (250 AUMs). Nonconsumptive uses would have 56,615 AUMs allocated. Livestock would be excluded from the 100 acres of existing exclusion. Proposed range improvements include seedings (22,030 acres), brush control and hardwood removal (11,468 acres), fences (112.5 miles) and water developments (81 developments).

As a result of the proposed range improvements, forage production is expected to increase by 14,964 AUMs. For purposes of analysis, it is assumed that the increase would be allocated to livestock (8,239 AUMs) and wildlife (6,725 AUMs).

- **Alternative 4, Emphasize Non-Livestock Grazing Values** - Alternative 4 would emphasize non-livestock values where conflicts with livestock grazing have been identified. Forage would be allocated in the short term to livestock (15,646 AUMs), wildlife (71,635 AUMs), wild horses (250 AUMs), and nonconsumptive uses (57,802 AUMs). This alternative would exclude livestock from 73,227 acres in addition to the 100 acres of existing exclusion. Proposed range improvements include 106.4 miles of fences, 116 water developments, 20,474 acres of seeding, and 13,018 acres of brush control and hardwood removal, all to benefit non-livestock values.

As a result of the proposed range improvements and exclusion of livestock from 73,227 acres, forage production for wildlife and nonconsumptive uses is expected to increase by 18,368 AUMs. The long term allocation to livestock is expected to decrease by 6,789 AUMs.

Environmental Consequences

Vegetation

Range and forage conditions would improve under Alternatives 2, 3 and 4 but would continue to decline under Alternative 1. Total residual ground cover would show a slight decrease under Alternative 1, but would remain the same under Alternatives 2, 3 and 4. The proportion of residual ground cover composed of perennial vegetation would increase under Alternatives 2, 3 and 4. Alternative 4, and to a lesser extent, Alternatives 2 and 3, would result in increases in key woody species on streamside riparian areas with medium and high improvement potential. Alternative 1, and to a lesser extent, Alternative 2, would result in decreases in key woody species in some riparian areas where funding constraints precluded development of improvements and systems. The standard procedures and design features for range improvements would prevent impacts to threatened, endangered and sensitive plants. Impacts from other aspects of the grazing management program on these species are unknown.

Soils

The development of range improvements under Alternatives 2, 3 and 4 would temporarily disturb the soil surface. Tractor scarification and burning would temporarily increase soil erosion. These areas would become revegetated within 1 to 2 years following scarification and burning.

Increases in riparian vegetation would help stabilize streambanks and decrease erosion under Alternatives 2, 3, and 4 to varying degrees on the 19 percent of streambank miles identified as having significant livestock damage. This erosion decrease would be most significant under Alternative 4.

Water

No significant change in water yield would occur under any of the alternatives. Water quality (sediment yield, water temperatures, fecal coliform levels) would improve under Alternative 4, and to a lesser extent under Alternative 3.

Wildlife

- The number of small mammals, birds and fish dependent on riparian areas would increase as key riparian plant species and population increase. Conversely, a decrease in populations would be expected as key plant species decrease. Riparian-dependent species would increase most under Alternative 4, and under Alternatives 2 and 3 (to a lesser extent) primarily due to proposed exclusions. These species would decrease under Alternative 1. No appreciable change in these riparian-dependent populations would occur over the long term under Alternative 2.

- Additional livestock exclusions under Alternatives 3 and 4 would increase upland game bird production.

- Deer and elk populations would slightly decline under Alternatives 1 and 2 and increase under Alternatives 3 and 4.

- Populations of cavity dependent species would be reduced or eliminated on 30 percent (Alternative 2); 17 percent (Alternative 3); and 13 percent (Alternative 4) of existing oak-woodlands.

- Under Alternative 1 a decrease in residual ground cover in the upland zones would decrease available cover resulting in a lower population of small animals. Conversely, Alternative 4 would allow increased accumulations of herbaceous litter with resultant increases of small birds, mammals and reptiles.

Wild Horses

Temporary disturbances to wild horses would occur during the period of construction of range improvements under Alternatives 2, 3, and 4. Wild horses would be allocated sufficient forage to provide for a maximum total population of 50 head under all Alternatives.

Recreation

Area-wide 1990 visitor use for public lands in the EIS area is projected to increase an estimated four percent by 1990 under Alternatives 1 and 2, five percent under Alternative 3 and six percent under Alternative 4.

Cultural Resources

Appropriate measures would be taken to identify and protect cultural sites prior to ground-disturbing activities.

Visual Resources

Certain portions of the EIS area may experience slight degradation of visual quality due to contrast created by range improvements. Project design features, as well as visual resource management program procedures and constraints, would mitigate land form and vegetative contrast under all alternatives.

Special Areas

Under Alternative 4, habitat for sensitive plant species would be enhanced within the Eight Dollar Mountain and Table Rocks potential ACECs. Under Alternatives 1, 2 and 3 there would be no impact in these areas. Grazing under all alternatives would not impact any other identified special area.

Timber Resources

Under all alternatives, with cooperation of livestock operators; proper season of use; proper stocking levels and distribution of animals; and proper allocation of forage between user groups, seeding and livestock grazing on moderate sites would not conflict with forestry objectives.

Human Health

The possibility of human health being impacted by the use of herbicides is related to the toxicity of the herbicide, the likelihood of exposure, and resulting dosage received. Based on current knowledge and the low risk of exposure on BLM-treated acres, an unreasonable risk to human health from continued, careful use of herbicides is unlikely.

Socioeconomics

Personal income and employment in Jackson and Klamath Counties would be increased over the long term under all alternatives. Temporary increases in income and employment due to installation of range improvements would be experienced under Alternatives 2, 3, and 4.

Under Alternative 4, two lessees would experience a long-term loss of forage amounting to more than 10 percent of their annual forage requirements. Under Alternatives 1 and 4 several lessees might experience a reduction in ranch value due to reduced grazing privileges.

Consultation and Coordination of the Draft Environmental Impact Statement

The Draft Medford Grazing Management Environmental Impact Statement (Interior DEIS 83-55) was filed with the Environmental Protection Agency and released to the public in September 1983 and open to comment until December 30, 1983. An informal public meeting was held in Medford, Oregon, November 16, 1983, to answer questions on the draft EIS.

Comments that presented new data, questioned facts or the adequacy of the impact analysis or raised questions or issues bearing directly on the draft EIS was responded to in this final EIS. Several reviewers made various resource management recommendations. These recommendations, as well as all public input, will be considered before the final decision is made.

The letters which were received have been reproduced in this final EIS, with each substantive comment identified and numbered. BLM responses immediately follow each of the letters.

Response to Comments

All comment letters were assigned an index number.

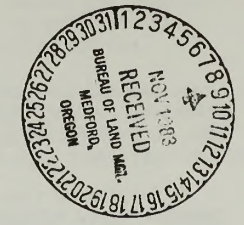
Number	Agency, Organization or Individual
1	Oregon Intergovernmental Relations (State Clearinghouse) Department of Fish and Wildlife Division of Soil and Water Conservation, Oregon State Department of Agriculture Department of Agriculture Department of Land Conservation and Development
2	James C. Miller
3	U.S. Environmental Protection Agency - Region X
4	Native Plant Society of Oregon
5	The Nature Conservancy
6	USDA, Forest Service - Pacific Northwest Region
7	Wild Horse Organized Assistance Inc.
8	Philip Krouse
9	Wildlife Management Institute
10	Sierra Club - Rogue Group
11	USDI, Fish and Wildlife Service
12	Mazamas
13	Darrel Stanley
14	B.F.C. Edmondson
15	USDOE, Bonneville Power Administration
16	Jackson County Stockmens Association
17	Gordon Stanley
18	Bob Powne
19	Jo Bigman

VICTOR ATIYEH
GOVERNOR

Executive Department

155 COTTAGE STREET NE., SALEM, OREGON 97310

November 8, 1983



Hugh R. Sheia, District Manager
US Department of Interior
BLM, Medford District Office
3040 Biddle Road
Medford, OR 97504

SUBJECT: Medford Grazing Management Program
PNRS #OR830929-033-4

Thank you for submitting your draft Environmental Impact Statement for State of Oregon review and comment.

Your draft was referred to the appropriate state agencies for review. The Department of Fish and Wildlife, Division of Soil and Water and Department of Agriculture offered the enclosed comments which should be addressed in preparation of the final Environmental Impact Statement.

We will expect to receive copies of the final statement as required by Council of Environmental Quality Guidelines.

Sincerely,

INTERGOVERNMENTAL RELATIONS DIVISION

Dolores Streeter
Clearinghouse Coordinator

DS:bjm
Enclosures

VICTOR ATIYEH
GOVERNOR

Department of Fish and Wildlife

506 S.W. MILL STREET, P.O. BOX 3503, PORTLAND, OREGON 97208

November 3, 1983

Hugh R. Shera
District Manager
Bureau of Land Management
3040 Biddle Road
Medford, Oregon 97504

Dear Hugh:

We have completed review of the Draft Environmental Impact Statement for the Medford Grazing Management Program. We generally support Alternative 3 but have some concerns regarding cavity dependent species habitat, deer thermal cover and size and spacing of created openings.

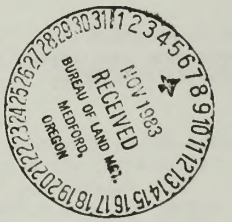
Comments prepared by my staff are attached. They are offered in a spirit of cooperation to assist you in preparing the final EIS and in generating a suitably balanced preferred alternative.

Sincerely,

Robert A. Shera

for John R. Donaldson, PhD
Director

JRD:kes
Attachment
cc: R. Rousseau
C. Smith
R. Werner
M. Jennings
R. Opp
J. Fortune



OREGON DEPARTMENT OF FISH AND WILDLIFE

COMMENTS ON THE MEDFORD GRAZING MANAGEMENT PROGRAM

DRAFT ENVIRONMENTAL IMPACT STATEMENT

#OR 830929-033-4

Summary Section

1. Page viii: Soils Section - the first paragraph, second and third sentences discuss soil erosion and delayed revegetation of "1 to 2 years following scarification and burning." Why must revegetation be postponed 1 to 2 years? We recommend that these areas be reseeded before the fall rains to prevent the impact to water quality from increased sediment yields. **1-1**

2. Water Section - refer to comment (1) above regarding sediment yield.

3. Wildlife Section - populations of cavity dependent species are predicted to be reduced or eliminated on 17 percent of existing oak-woodlands under the preferred alternative (3). How much reduction is expected? Species populations should be maintained at 60 percent level of potential. This would be consistent with the ODFW Wildlife Policy 496.012. (See comment 6 also) **1-2**

4. Page 5,Alternative 3 Preferred Alternative - We generally concur with the forage allocations and long-term increase allocation for wildlife which allows for a potential ten percent big game increase.

5. Page 22- Under the Riparian Areas heading, the semi-wet meadows habitats breakdown shows 1,327 acres in poor condition because of past heavy livestock use. Why is protection of semi-wet meadows not mentioned in Alternative 3? The last sentence under Riparian Areas states "Habitat for wildlife is far below potential in most semi-wet meadow habitat primarily because of past heavy livestock use, and the subsequent invasion of annual weed species such as medusahead." **1-3**

   The only reference to proposed habitat work specifically directed to meadows was found on page 32 of the DEIS under Impacts on Vegetation, item c, Meadow Seedings: Dry meadow, semi-wet meadow.

   We recommend that additional practices be stated in the DEIS under this section which would specifically address restoration of a significant amount of poor condition meadow habitats. We suggest that the Preferred Alternative include the level of protection and improvement potential for semi-wet meadows which is stated for Alternative 4. **1-4**

6. Page 33, Plant Species Composition and Page 64, second column, first paragraph dealing with hardwood canopy cover prescriptions. The denser stands of oak are used extensively by deer during hot, spring days. The thinning and hardwood removal plans should allow for leave blocks of the denser stands 20 to 30 acres in size with 50 percent or more canopy closure.

7. Page 36, first column, 4th paragraph and Table 1-1. Seeding of cutover forested areas. We concur with this practice but prefer that more acres be proposed for seeding than the 4789 acres shown. This practice is very beneficial to deer and elk.

8. Page 37, Impacts on Soils - see comment (1) also. Why is the statement made that "the surface erosion would be minimal "when soils would be exposed for one to two years after scarification and burning? **1-5**

9. Page 38,Impacts on Wildlife, second paragraph should include mention of thermal cover loss to deer due to some thinning and removal of oak-woodlands. **1-6**

10. Page 40, first column, third paragraph - Here and in other sections of the DEIS reference is made to the benefits which will accrue from managing for habitat diversity when admittedly any changes outside exclosures will be over the long-term (15 to 20 years) and on a very small portion of the EIS area. New exclusions (approximately 25 acres) along 4.75 miles of stream would not significantly affect the overall wildlife populations through increased habitat diversity.

11. Page 43,first column, second paragraph - by not listing any adverse impacts under Alternative 3, are we to assume that none are expected under any of the rangeland improvements and grazing systems planned? The oak-woodland thinning and temporary roads would certainly have some adverse impacts and should be so stated. Thermal cover must be retained in sufficient acreages and distribution or negative impacts will occur. Thermal cover should be inserted in item (4) with hiding cover and mast crops. Also see semi-wet meadows, comment 5. **1-7**

12. Page 43, third paragraph, last sentence - Sound land management must take into consideration the other land uses and the accumulative effect of all the various negative impacts upon wildlife habitat. Homesite development eliminates or reduces the quality or effectiveness of habitat. The quality and quantity of habitat has a definite relationship to the impact intensity of the other limiting factors upon the deer population.

13. Page 43, item (1) - How many acres of key fawning riparian habitat are proposed for complete protection? What increase to the deer herd is predicted as a result of implementing this protective measure? Refer also to comment 10. **1-8**

1-9

14. Page 43, Cavity Dependent Species - In order to be in conformity with the Wildlife Policy of the Department of Fish and Wildlife (ORS.012), cavity dependent species habitat must be provided in sufficient amount to maintain a population potential of 60 percent. This will prevent the "serious depletion of any indigenous species". Achievement of the above standard will require coordination of the Grazing Management Program and the Timber Management Plan for the EIS area.

    We recommend that a similar statement on cavity nesters, etc., be added to Appendix O - Standard Procedures and Oesign Elements for Range Improvements.

15. Page 43, Elk - Proper timing of cattle grazing can be very beneficial to elk winter range. Fall grazing of livestock on elk and deer winter range can be beneficial, provided it occurs before greenup and the arrival of big game animals.3

16. Page 45, Impacts on Recreation, second sentence - contains a trite statement about fences being an annoyance to recreationists which is similar to or identical to those contained in several other GMP's. We feel it tends to bias the reviewer toward fencing and has little to do with the impacts of the fence which are impedence of access and localized reductions of visitor use.

17. Page 63, Appendix D, Standard Procedures and Oesign Elements for Range Improvements - This section contains some good mitigative measures which we endorse. We suggest the following additional elements and suggested wording changes which would more adequately comply with Department goals and standards and Westside forest deer and elk requirements.

1-10

A. Page 64, left column, next to last item - to meet deer and elk needs, individual vegetative manipulation and/or seeding units should be no larger than 60 acres, 20 x 30 chains, which would have no point within the unit over 660 feet from cover. (A 90 acre rectangle 20 x 45 chains would also be 100 percent useable). Coordinate with Oregon Oepartment of Fish and Wildlife.

1-11

B. Page 64, right column, first paragraph, starting with second senterce, the suggested wording changes are: Forage areas created will not be so large that any point in the area is over 660 feet from cover. Oak canopy cover will not be reduced to less than ten percent except that 10 to 25 acre blocks of trees having 50 percent or greater canopy closure will be left unthinned for deer thermal cover. Most of the hardwoods 12 to 14 inches or greater in dbh will be left. Layout and design will be coordinated with local Oepartment of Fish and Wildlife biologists.

1-12

C. Add: Cavity dependent species habitat will be maintained at a level which will meet at least 60 percent of the population potential in the EIS area.

3 Leckenby, O.A., O.P. Sheehy, C.H. Nellis, R.J. Scherzinger, I.O. Cuman, W. Elmore, J.C. Lemos, L. Doughty, C.E. Trainer. Wildlife Habitats in Managed Rangelands - The Great Basin of Southeastern Oregon. 1982.

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
155 Cottage St NE , Salem, Oregon, 97310
Phone Number: 378-3732

RECEIVED
SEP 30 1983
OSDA-DIVISION OF SOIL AND WATER CONSERVATION

PNRS STATE REVIEW

Project #: OR 830929-033-4 Return Date: NOV 04 1983

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

If you cannot respond by the above return date, please call to arrange an extension at least one week prior to the review date.

INTERGOVERNMENTAL RELATIONS DIVISION
OCT 04 1983

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project has no significant environmental impact.

(X) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement.

( ) No comment.

Remarks

We support the proposed alternative.

Agency Soil & Water By Charles V. Sides

PNRS #8

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
155 Cottage St NE , Salem, Oregon, 97310
Phone Number: 378-3732

PNRS STATE REVIEW

Project #: OR 830929-033-4 Return Date: NOV 04 1983

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

If you cannot respond by the above return date, please call to arrange an extension at least one week prior to the review date.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project has no significant environmental impact.

( ) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement.

( ) No comment.

Remarks

The preferred alternative, #3, will provide some benefits to all concerns. However, we would recommend an alternative with greater emphasis on water and streamwide management as well as forage production with subsequent allocations for livestock use. Alternative #2, if adjusted, could satisfy these concerns and contribute significantly to the economy of the EIS area.

It was noted that it is the responsiblility of the BLM to manage livestock grazing on public lands in a manner that would maintain or improve public land resources. Alternative #2 will provide an improved range condition over the long term. In addition, the socio-economic condition of the EIS area as well as that of the surrounding area would benefit significantly. This is an important factor of consideration and an LCDC statewide goal. Oregon's ranching industry is a vital segment of the total economy totaling more than $488 million in 1981. This EIS area alone, provided 5202 jobs (1981) and $54.7 million to the total economy (1982). (See EIS report page 28.)

Soil and water are the two most critical resources to be manged. Serious problems exist within the EIS area and require immediate attention. We recommend that range improvements focus on those creeks and sites with existing problems (erosion, sediment, insufficient riparian vegetation, etc.), shared by livestock and wildlife (specifically big game), that also show the greatest potential for improvement.

When funding becomes the limiting factor, efforts should pursue initiating co-operative management agreements (CMA) or coordinated resource management plans (CRMP) between users and other interested parties and landowners. Cooperative agreements are successful and assure proper use of forage resources and adjacent land resources, as well as provide increased opportunities for making necessary improvements.

Finally, we recommend limiting wilderness areas and striving for multiple-use mangement plans.

Thank you for the opportunity to comment.

Agency Agriculture By M Robinson

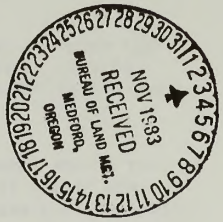
PNRS #8

VICTOR ATIYEH
GOVERNOR

Department of Land Conservation and Development

1175 COURT STREET N.E., SALEM, OREGON 97310 PHONE (503) 378-4926

November 1, 1983



Hugh Shera
Oistrict Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97504

Oear Mr. Shera:

The Oepartment has completed its review of the Medford Grazing Management Program Oraft Environmental Impact Statement. In general, we support the draft EIS and the preferred alternative. The proposed action does affect portions of Coos, Curry, and Oouglas Counties which are included in the Oregon Coastal Zone. The Final EIS, therefore, needs to contain an
1-13 assessment of the impacts of the proposed action on the Oregon Coastal Zone. If the action will directly affect the Coastal Zone, a consistency determination will be required pursuant to Section 307 of the Federal Coastal Zone Management Act and the provisions of Title 15, Code of Federal Regulations Section 930. Applicable portions of the Oregon Coastal Zone Management include acknowledged plans, Statewide Planning Goals, and the Oregon Statutory Wildlife Policy. The Department considers it unlikely that the proposal action would directly affect the Oregon Coastal Zone.

If you have any questions regarding our response, please contact Patty Snow of my staff.

Sincerely,

James F. Ross
Oirector

JFR:PS:llt
6401B/2B

Responses to Letter No. 1

1-1 Non-forested areas that have been burned or scarified would be seeded with an appropriate mixture of grasses and legumes prior to fall rains. However, increased erosion rates could be expected until at least a 40 percent ground cover is obtained. In most instances, the ground cover necessary to significantly reduce erosion would become established in the spring following seeding. If poor germination occurred due to drought or nonviable seeds, the ground cover necessary to effectively curb erosion might not become established until the second spring following seeding.

1-2 The Bureau recognizes the need to manage non-game habitat as an important resource. Under Alternative 3, approximately 17 percent (6,999 acres) of existing oak woodland acreage would be treated, not 17 percent of the tree canopy. As indicated in Appendix D (page 64 of the DEIS), oak canopy coverage is not planned to be reduced to less than 10 percent. This, along with other protective measures identified in Appendix D, would serve to mitigate adverse impacts. The BLM is presently cooperating with the Oregon Department of Fish and Wildlife on a jointly sponsored study to monitor the Lewis' Woodpecker and related non-game species. This study information would be used where possible to minimize adverse impacts. BLM does not plan to eliminate large blocks of oak woodlands, but rather to leave adequate wildlife hiding and thermal cover. Within the treatment areas, selected oak or hardwood leave trees 12 to 14 inches or greater in diameter would be retained. These larger trees are of greatest value to cavity dependent species. Thus, expected reduction in cavity dependent species would be somewhat less than 17 percent.

1-3 One of the main objectives of Alternative 3 is to maintain or improve range and forage conditions, including semi-wet meadows, through the use of grazing systems, which include fencing where needed. If desired improvements are not achieved, additional methods or means would be investigated. Table 1-1 (page 2 of the DEIS) shows the level of meadow restoration under the various alternatives. For example, under the preferred alternative, about 2,474 acres of meadow would be improved. Impacts to meadows are discussed on page 36 of the DEIS.

1-4 The preferred alternative has approximately a 25 percent increase in meadow restoration compared to Alternative 4. See also response to 1-3. In addition to meadow restoration, fencing is planned for meadows of sufficient size with water. These special management areas would have controlled grazing. On smaller meadows where fencing is not feasible, grazing systems would be developed to maintain or improve meadows. All meadows proposed for treatment are currently in an early seral stage with lower productivity levels and site potential.

1-5 In most cases, sufficient vegetative cover would become established in the spring following seeding to substantially reduce surface erosion. Practices such as piling brush and scarifying on the contour would be employed on slopes in excess of 10 percent to reduce overland flow and subsequent erosion.

1-6 Loss of some deer summer thermal cover could be listed as a third example, but only if the projects would reduce cover to less than 40 percent of the area. Appendix D (page 64 of the DEIS) states that hardwood removal on oak woodlands would attempt to maintain a forage to cover ratio of 60 to 40.

1-7 Oak woodland thinning with the related temporary roads could cause increased access and loss of some summer thermal cover. However, these impacts would not be significant as at least 60 to 40 forage to cover ratios are planned and access would be controlled by road closure.

1-8 Approximately 125 acres are proposed for protection. While the increase in deer populations that would be due to this measure is unknown, a 10 percent increase area-wide is estimated under this alternative (page 42 of the DEIS).

1-9 As stated in Appendix D, standard procedures and design elements for range improvements call for an attempt to maintain a forage to cover ratio of 60 to 40. Oak canopy cover would not be reduced to less than 10 percent. Hardwood leave trees would be the larger trees which would provide the best available cavity nest site potential. The DEIS (page 42) concluded that there would be a low adverse impact to cavity dependent species population under Alternatives 3 and 4. Area-wide decreases below 60 percent of potential would not occur.

1-10 Forage areas created would be limited in size. No point within these areas would be more than 660 feet from cover. Most vegetative manipulation projects would be 60 acres or less due to the soil and vegetation relationship in southwest Oregon. Some units may exceed the 60-acre size, but cover and vegetation breaks would be design features incorporated to mitigate impacts. All vegetative manipulation projects would be coordinated with the Oregon Department of Fish and Wildlife.

1-11 Thermal cover requirements are incorporated as a part of the design features. Leaving 10 to 25 acre blocks of 50 percent or greater oak canopy would be restrictive due to the current average size of oak woodland vegetation sites. In larger areas proposed for treatment this may be feasible. However, many of the oak woodland sites already have close to or exceed 50 percent canopy cover, due to past fire control in southwest Oregon. The average oak woodland site is approximately 45 acres. All projects would be coordinated with the Oregon Department of Fish and Wildlife on a site-by-site basis.

1-12 See response to 1-9.

1-13 An analysis of a map of the Oregon coastal zone indicates that no public lands proposed for grazing under any EIS alternative lie within the zone. The Oregon coastal zone would not be impacted under any of the alternatives.

975 Dead Indian Rd.
Ashland, OR 97520
November 16, 1983

Mr. Hugh Shera
District Manager
Bureau of Land Management
3040 Biddle Rd.
Medford, OR 97504

Dear Mr. Shera:

I would like to direct a few comments toward the E.I.S. concerning what affects me as a permitter on BLM lands. First, on the preferred alternative on the Cove Creek allotment, the time period for grazing has been shortened from April 1 to June 15 to May 1 to June 15. Since this is a spring grazing situation for 30 head of cattle, I object to the shortening of the time period. The additional winter costs for the added 30 days would be prohibitive for me as a cattle operator. Second, on the Conde Creek allotment and Keene Creek allotment, additional fencing is proposed to create several pastures under proposed deferred rotation. I object to the additional fencing, particularly because of the cost and time to maintain these added fences. For the small operator we are unable to assume any more fencing responsibilities. Our business is not prosperous enough to assume the added costs.

2-1

2-2

Thank you for considering these suggestions.

Sincerely,

James C. Miller

Responses to Letter No. 2

2-1 Grazing dates are flexible and may vary from year to year depending on weather and plant growth. Soils in different parts of the EIS area also influence turnout dates. Footnote 1 to Table C-1 (page 62 of the DEIS) states that turnout dates may vary by 2 weeks depending on annual weather conditions. May 1 is a target date and could be adjusted on an annual basis for proper resource management. In drier years, April 15 may be feasible.

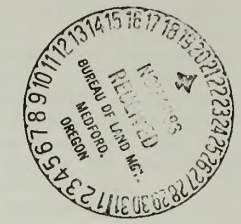
2-2 In order to manage livestock and the vegetative resource, pastures are needed to control cattle. Fencing is one way of designing a grazing system to meet resource management objectives and to improve forage and range conditions.

3

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S 443

NOV 16 1983



Hugh R. Shera
District Manager
Bureau of Land Management
3040 Biddle Road
Medford, Oregon 97504

Re: Draft EIS--Medford Grazing Management Program

Dear Mr. Shera:

We have reviewed the Medford Grazing Management Program Draft EIS, and offer the following comments for you to consider and address in the Final.

3-1 Herbicide Usage: The Draft neither discusses the specific herbicides to be used for "range improvements" nor provides monitoring results from previous spraying operations in the Medford area. When preparing the final EIS, you should list the herbicides to be used, describe their characteristics and the general conditions governing their usage, and any specific measures to mitigate potential impacts, especially in maintaining water quality. Relevant monitoring data should also be included. If written as an appendix to the final EIS, a section on herbicides would be a useful adjunct to the Final EIS.

3-2 Drinking Water: Public and private drinking water sources in areas affected by the program should be identified, potential effects on drinking water described, and measures to prevent adverse health consequences discussed.

3-3 Discussion of Alternatives: We suggest that BLM evaluate an alternative that allows for exclusion of potentially affected riparian zones. Such an alternative could be "between" alternatives #3 and #4.

3-4 Mitigation Measures: Chapter 3 (Environmental Consequences) includes points about measures to mitigate environmental impacts. Most issues and potential impacts are addressed. With specific regard to water quality, the Final EIS should include information comparing the proposed mitigation measures with applicable Best Management Practices under the Section 208 program.

In future EISs we strongly recommend that you include a subsection about mitigating measures as part of each impact catagory. Review and evaluation can then be focused more clearly on both the environmental effects of the proposed actions and the measures being proposed to minimize adverse effects.

3-5 Streamside Impacts: The final EIS should evaluate strategies to minimize the streamside effects of the preferred alternative by, for example, using some of the strategies applicable to the non-livestock alternative.

EPA has rated this Draft EIS LO-2 [LO--Lack of Objection; 2--Insufficient Information]. We appreciate the opportunity to review the report. If you wish to discuss EPA's comments and recommendations, please contact Richard Thiel, Environmental Evaluation Branch Chief, at 442-1728 or (FTS) 399-1728.

Sincerely,

Robert S. Burd
Director, Water Division

Responses to Letter No. 3

3-1 Appendix D (page 64 of the DEIS) identifies the herbicides to be used and general procedures and design elements for their use. Appendix D further states that a more thorough description of design features applicable to herbicide use is in BLM's final EIS, Vegetative Management with Herbicides - Western Oregon (USDI, BLM 1978d). Additional information is found in BLM's Draft EIS, Western Oregon Program - Management of Competing Vegetation (USDI, BLM 1983b) also incorporated by reference under CEQ regulations (40 CFR 1502.21).

3-2 Public and private drinking water sources in areas affected by the grazing program would be identified and analyzed in site specific environmental analyses prior to implementation of range improvements (see Appendix D of the Draft EIS).

3-3 Public comment received during the scoping period (described in Appendix A of the DEIS) led to development of the four alternatives which were analyzed. Alternative 4 calls for exclusion of all potentially affected riparian zones. The EIS section describing purpose and need (page x of the DEIS) further states that the Record of Decision may be to select one of the EIS alternatives intact, or to blend features from several alternatives within the range of actions analyzed in the EIS. The Record of Decision will describe the major components of the program and their relationship to the EIS preferred alternative.

3-4 Best management practices (BMPs) for range and grazing activities on lands administered by BLM have been included in Amendment No. 1 to the Oregon Department of Environmental Quality - Bureau of Land Management Memorandum of Understanding. See text change for page 63.
Grazing systems identified under each alternative incorporate the following BMPs: proper grazing use, planned grazing systems, deferred grazing, and livestock exclusion. Range improvements planned under each alternative include BMPs such as brush management, fencing, range seeding, and livestock watering management.

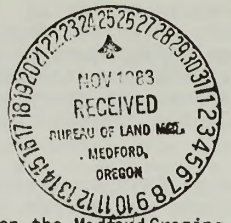
3-5 The primary purpose of Alternative 4, Emphasize Non-Livestock Values, is to evaluate such strategies.

4

NATIVE PLANT SOCIETY OF OREGON

FOUNDED 1961
P.O. Box 531
Ashland, OR 97520

November 22, 1983



District Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97501

Dear Sir:

Thank you for the opportunity to comment on the Medford Grazing Management Program Draft EIS.

-1 The Summary states that this EIS "analyzes the impacts of implementing a livestock grazing program" (p.vii) yet no data is available to analyze the impact on any of 18 plant species under review for Federal Listing as threatened or endangered status or for the 40 plants considered sensitive by the BLM. Furthermore no data analyzing impacts is given in this EIS for any plant species that are not listed. To say that no data exists does not constitute an analysis of impact.

-2 The benefits of protecting species such as Limnanthes floccosa, an oilseed plant, are not considered in the long range. A botanist should be given primary responsibility for preparing a section of the document. None is listed among the preparers (p.53).

-3

-4 The offered alternatives seem quite extreme. The difference between Alternatives 3 and 4 seems too wide. Although public comment during scoping focused on the issue of threatened, endangered and sensitive plants, only Alternative 4 addresses this concern. The two potential ACECs, Eight Dollar Mountain and Table Rocks, are protected only in Alternative 4. Surely some compromise between 3 and 4 could be reached to protect key areas and plants while permitting livestock on other areas at a cost to wildlife and non-consumptive uses, even to other vegetation.

Yours truly,

Darlene Southworth
Past-President

Wayne Rolle
President

DS/WR/lg

Responses to Letter No. 4

4-1 Prior to vegetation manipulation and development of range improvements, intensive inventories would be conducted for species listed or under review for listing as threatened or endangered, as well as for plants considered sensitive by BLM. Appendix D (page 63 of the DEIS) identifies design features to mitigate adverse impacts to threatened, endangered, or sensitive species. If data collected by BLM or the U.S. Fish and Wildlife Service indicate that any species warrant special management because of limited range, small population numbers and imminent threats, the Bureau would prepare a management plan for the species. Data analyzing impacts to other plant species are on file at the Medford BLM District Office (see Thompson, John, and Bill Drewien, 1983 Soil-Vegetation Interpretation in the southwest Cascade Mountains in Jackson and Klamath Counties, Oregon - unpublished).

4-2 The locally endemic subspecies of Limnanthes floccosa are being considered in long range plans. The Lower Table Rock, where L floccosa ssp. pumila occurs, is being managed in cooperation with the Nature Conservancy, with a primary management objective being the enhancement of this subspecies. The Upper Table Rock is being considered for outstanding natural area designation. Limnanthes floccosa spp. bellingeriana is not, at this time, being considered for a special management plan. However, current management considers the species' ephemeral growth pattern in determining the turnout date for cattle grazing in the specific area where Limnanthes grows.

4-3 Although a botanist was not listed as one of the primary preparers, information for the botanical sections was supplied by the Medford District Botanist.

4-4 The only wide difference between Alternatives 3 and 4 is the allocation of forage to livestock and wildlife, which is based on differing objectives for livestock grazing and protection of riparian areas. Adverse impacts to threatened, endangered or sensitive plants are not expected under any alternative but are largely unknown due to lack of data. Appendix D (page 63 of the DEIS) describes standard procedures and design elements to mitigate impacts to threatened, endangered, and sensitive plants. See also response to 3-3.

The Nature Conservancy

1234 Northwest 25th Avenue
Portland Oregon 97210
503 228-9561

December 2, 1983

Mr. Hugh Shera
District Manager
BLM Medford District
3040 Biddle Road
Medford, OR 97504

Dear Mr. Shera,

We would like to provide some input to your draft Medford Grazing Management Program EIS of September 1983. You and your staff have obviously worked long, hard hours on this important task and you've done a good job of proposing alternatives that include the concerns of every public land user. We do, however, have some additional concerns and suggestions which we hope you can address as you prepare your final EIS.

Overall, we feel this draft EIS is well put together but a bit too ambitious, particularly in terms of range improvements via habitat manipulation. Such large scale vegetation conversion projects need to be approached cautiously. One can't assume that their proposed methods and predicted results will necessarily be achieved in every case. Some of the areas proposed for treatment may have very nutrient-poor or have heavy clay soils which are not easily revegetated. Unpredictable drought, fire, or excessive rainfall could also make a seeding project unsuccessful. Your program appears to bank on a considerable increase in forage production via these methods. The preferred alternative suggests that range and forage conditions will be maintained or improved. However, the number of AUM's to be allocated to nonconsumptive use is the same as the 1982 level - a level which is currently causing an overall decline in condition.

5-1

Probably our strongest specific interest and greatest knowledge is in Special Management Areas and Sensitive Species. As you may know, The Nature Conservancy manages the Oregon Natural Heritage Data Base which inventories and monitors significant natural area features including rare and endangered species and ecosystems. It is the backbone of the

Western Regional Office
156 Second Street
San Francisco California 94105
415 777-0541

National Office
1800 North Kent Street
Arlington Virginia 22209
703 841-5300

state's official natural areas program as passed by the sixty-first Legislative Assembly (ORS 273.576). This program specifically identifies 'cells' or 'elements' which when filled would represent the full spectrum of Oregon's native ecosystems to be used for science and education and to be passed on to future generations. Your list of potential and existing ACEC's and RNA's on page 27 of the EIS does a very good job of pinpointing some of the highest quality special areas within your jurisdiction, although a bit more identification work remains to be done. We strongly support their full designation. If so designated and actively protected through site specific management plans, these areas will go a long way towards conserving the outstanding natural diversity found in southwest Oregon. Eight Dollar Mountain, for instance, has the greatest concentration of rare plant species of any site in the state. Its significance is recognized not just locally, but nationally as an unusually rich botanical locale.

5-2

One important habitat type that is not included in any of the suggested special areas is the native oak woodland plant community. Prior to the European settlement of Oregon, this ecosystem dominated much of the Rogue and Umpqua valleys and their surrounding hillsides. These are precisely the areas where the most development and habitat alteration has occurred. Consequently, examples of this community which still retain their native understory and overstory composition are very uncommon and threatened with extirpation. Your plan to convert several thousands of acres from oak woodlands to improved grazing systems may well add to this threat. In 1983, our office conducted an intensive survey for interior valley native oak woodlands. Only two quality areas were found. Both of them contain some BLM land. These sites are Round Top Butte and Anderson Butte. We believe that they too should be proposed as special areas and excluded from livestock grazing. Setting aside a few good examples of natural areas is an essential part of sound multiple use management. These are areas where natural processes are allowed to take over and from which baseline data can be gathered and applied to other areas. Without protection of such sites, we foreclose on these opportunities.

On page 45 of the EIS it is stated that there will be no impact on special areas under Alternatives 1,2, and 3. We feel that in order to maintain and improve natural area values

5-3 within these areas, livestock grazing should be excluded from them under all Alternatives. Grazing causes shifts in species composition which is detrimental to the native condition, and which makes these areas unsuitable for the study of natural ecological processes. The running of cattle on Round Top Butte BLM lands, for instance, is slowly increasing annual and decreasing perennial bunchgrass cover in this important area. The removal of livestock grazing from those special areas currently being grazed will allow their physical condition and ecological value to improve dramatically. Since special areas make up only about .006% of the total EIS area, the impact on available AUM's from such action would be small.

Another area of interest to us is that of non-game species. Of all the categories discussed under the "affected environment" and "environmental consequences" sections of this EIS, the non-game group of animals appears to be the group with perhaps the largest negative impact. Under the preferred alternative, many cavity dependent species can expect significant adverse affects. In some allotments up to 60% of the existing oak woodlands may be treated under rangeland improvement programs. Such a major change is likely to disrupt not just cavity users but many non-game species irreparably in these areas. If possible, we would like to

5-4 see these negative affects minimized by altering the preferred alternative. Even though non-game species do not provide much in the way of direct economic benefit to the public, we feel that their habitat needs need to be addressed and provided for as well as those of game and domestic animals. In particular, uncommon or declining species such as the blue-gray gnatcatcher and Lewis' woodpecker need to be monitored.

The greatest diversity and densities of wildlife are found in riparian areas and studies in Oregon have shown more kinds and numbers of wildlife in protected riparian habitat as compared to adjacent grazed riparian habitat, yet only 25 acres of riparian areas are being recommended for fencing. Excluding livestock from these critical areas presents an opportunity to benefit wildlife substantially and at a relatively low cost while also improving water quality and vegetation condition. This is an opportunity you should take more advantage of.

Table 2-3 on page 18 does an excellent job of listing the federal notice of review plant species as well as their habitat preferences and general localities within the EIS area. You obviously have a strong and knowledgeable botany program in the Medford District. We feel that Bureau policy as outlined in Appendix D to conduct intensive plant and animal inventories on project areas and to modify designs as needed to minimize negative impacts to listed or review

5-5 list species is a good one. One important plant which is under federal review and missing from your table is Epilobium oreganum (Oregon willow-herb), which is known to occur within allotment 308. We concur that, in general, information concerning the impact of livestock grazing on sensitive plants is lacking. However, our files and research

5-6 experience suggest that for at least five of the 19 plants currently under federal review in your area, livestock grazing definitely has negative impacts. These are: Arabis aculeolata, Calochortus greenei, Calochortus howellii, Cypripedium californicum, and Epilobium oreganum.

Your knowledge of and policy regarding threatened and endangered animals is also very good. We agree that no significant impact should be expected on the bald eagle or peregrine falcon under any of the proposed alternatives. We would very much like to see alternative 4 accepted with regards to the habitat of the Jenny Creek sucker. As the EIS points out, any improvement in the condition of this unique and limited genetic resource can be expected only under this alternative. This fish lives only in the Jenny Creek drainage basin and the BLM manages a large portion of it. On page 26, the spotted frog is mentioned as a representative species of the non-game group that inhabits the EIS area. To the best of our know-

5-7 ledge, this animal (Rana pretiosa) has been extirpated from the EIS area and the rest of western Oregon. It is officially protected by the State of Oregon. Are there any known extant populations in the Medford District? If so, we would be very interested in knowing.

One final comment we'd like to make involves the planned methods for improving meadow and semi-wet meadow areas. As is noted, many of these areas have been overgrazed and are in poor condition. Proposed methods for improvement are discing and/or use of herbicides followed by seeding with a grass-legume mixture. Two methods not proposed are

5-8 | exclusion from grazing and seeding with native grasses. Particularly in the areas considered to be in fair or good condition (16%), these latter methods are likely to be more effective. Discing and herbicide use will effectively

5-9 | destroy any remaining native grasses and forbs as well as stable soil structures. The use of native species in your range improvement projects is something we would like to see more of. Grasses such as Agropyron spicatum, Festuca idahoensis, and Deschampsia caespitosa once dominated understory and prairie vegetation in the EIS area and they have been adapting to natural conditions found here for many thousands of years. Heavy livestock use and other agricultural practices in the past 100 years has greatly reduced their extent. It would appear logical to try and re-establish them, at least in some areas. We are aware that the availability of these seeds in quantity is very limited and often expensive. However, with the scale of your proposed management plans here and on other Districts, it seems feasible to set up a nursery or seed bank to produce such seed in large amounts. I think you would find a receptive market beyond just your own needs.

Thank you for the opportunity to comment. Your task is a difficult one and one that holds great importance for current and future Oregonians. We hope you will consider our ideas as you work on a final decision. It is important that unique and vanishing habitats and species be preserved. In most cases it is impossible to predict what specific economic or humanitarian values they may hold, but once lost, they cannot be replaced.

Sincerely yours,

Curt Soper

Curt Soper
Data Base Coordinator

CS:da

Responses to Letter No. 5

5-1 Appendix C, Table C-1 (pages 60-62 of the draft EIS) indicates that static or upward trend would be expected in all allotments under the preferred alternative. This would be due to improved grazing systems and development of range improvements.

5-2 BLM management does not call for conversion of oak woodland sites into grassland pastures. Past fires have allowed white oaks to sprout and reduce ground cover. Fire suppression over the past 40 to 50 years has resulted in lower forage productivity of these sites relative to site potential.

5-3 Of the five potential areas of critical environmental concern (ACECs), grazing is currently only authorized in the Eight Dollar Mountain and Upper Table Rock areas. While the Upper Table Rock is presently under a grazing lease, no grazing use has been made there for the past several years. BLM inventory data does not indicate a decrease in native perennial grasses in the Round Top Butte area. Our observations indicate that trend is upward, but trend is limited by the increase in oak canopy cover resulting from past fire control. See also response to 5-2.

5-4 See response to 1-2.

5-5 Epilobium oreganum occurs on Eight Dollar Mountain in Section 21. The Bureau has no record of this species occurring in grazing allotment 308 which includes parts of Sections 3, 4, and 5.

5-6 The plant species mentioned are very palatable plants and are grazed by wildlife in areas where no cattle occur. Undoubtedly, cattle would also graze them when given the opportunity. A habitat management plan is currently being prepared for Calochortus greenei. The other species occur in an area which has been nominated for an Area of Critical Environmental Concern. If the area is designated, grazing effects would be considered in its management plan. See also response to 4-1.

5-7 See text change for page 26.

5-8 The use of native species has not been ruled out, but as pointed out, reliable seed sources based on quality and quantity are difficult to obtain. Discussions with Oregon State University regarding collection of seed for nursery stock have been initiated.

5-9 Herbicides would be used in meadow restoration to control noxious weeds. Herbicides are presently restricted from use on the Medford District. Meadow restoration attempts where tarweed has infested the site have been difficult and expensive due to growth inhibitors produced by tarweed. See response to 1-4 for additional comments on meadow restoration.

6

United States Department of Agriculture | Forest Service | Pacific Northwest Region | 319 S.W. Pine, P.O. Box 3623, ~~Portland, OR 97208~~

Reply to 2560

Date November 28, 1983

Hugh R. Shera, District Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97504

Dear Mr. Shera:

The Draft E.I.S. for the Medford Grazing Management Program has been reviewed by the Rogue River and Siskiyou National Forests and by Regional Range Management personnel. Their conclusions are that the alternatives, as developed, are logical and the impacts of implementation fairly assessed.

The implementation of any alternative, with the exception of alternative 4-non-livestock, will not have an adverse impact on the range programs of the adjacent National Forests. The preferred alternative should, in fact, complement our efforts to develop positive range management programs on the Rogue River and Siskiyou National Forests.

Sincerely,

for JEFF M. SIRMON
Regional Forester

DEC 1983 RECEIVED BUREAU OF LAND MGT. MEDFORD, OREGON

FS-6200-11a (8-80)

7

WHOA!

WILD HORSE ORGANIZED ASSISTANCE INC.
A Foundation for the Welfare of Wild Free-Roaming Horses and Burros

P. O. Box 555
Reno, Nevada 89504
Telephone 323-5908
Area Code 702

BOARD OF TRUSTEES
DAVID R. BELDING
JACK C. McELWEE
GORDON W. HARRIS
BELTON P. MOURAS
GERTRUDE BRONN, Honorary
In Memoriam
LOUISE C. HARRISON
VELMA B. JOHNSTON, "Wild Horse Annie"

Kathryn Cushman
Box 26
Canterbury, New Hampshire 03224
November 30, 1983

Hugh R. Shera
Department of the Interior
Bureau of Land Management
Medford District Office
3040 Biddle Road
Medford, Oregon 97504

Dear Mr. Shera:

Thank you for the opportunity to comment on the Medford Grazing Management Draft Environmental Impact Statement. It is encouraging, for once, to review a draft EIS and find that a wild horse herd is allowed to increase in numbers.

7-1 Any new fences (p. 45 Impacts on Wild Horses) should be well marked to prevent any injury to the horses. We have found that plastic surveyors flagging tied to the fencing is an inexpensive and effective way to mark new fencing. Unless they are being harrassed, wild horses will not attempt to go through a well flagged fence.

7-2 Is money available for the five water developments proposed under alternatives 2, 3 and 4? It will greatly benefit the horses if these are completed.

The horse herd should be monitored in future years to be certain that no signs of inbreeding are evident.

Sincerely,

Kathryn Cushman

Kathryn Cushman
Wild Horse Organized Assistance

DEC 1983 RECEIVED BUREAU OF LAND MGT. MEDFORD, OREGON

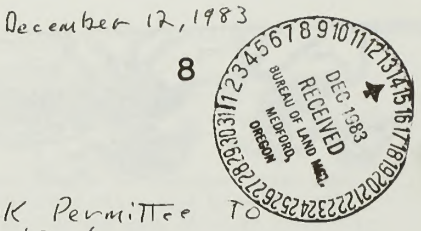
Responses to Letter No. 7

7-1 Flagging of fences would be considered on a site specific basis prior to implementation of range improvements (see Appendix D of the draft EIS).

7-2 Funding for proposed range improvement projects on federal lands is not guaranteed and is subject to annual appropriations by Congress. The water developments would be developed if funds are appropriated.

December 12, 1983

8



Mr Hugh P. Shera
District MANAger
Bureau of Land MANAgement
3040 Biddle Rd.
Medford Oregon 97504

Dear Mr Shera;

I Am writing AS A livestock Permittee TO comment ON The DrAFT Medford GrAzing MANAgement Program.

8-1 ON PAge 61 Number 203 Billy - Sugarloaf Allotment your E.I.S. is in error. It STATES THAT our Turn-ON dATe is APril 15. My FAmily hAS rAN CATTle ON THIS rANge SINCE 1927, Prior TO PASSAge OF The TAylor grAZing ACT. We hAve TurNed CATTle ONTO THIS rANge APril 1 AS did ClinTON COOK who owned This Place before we bought it. IN over 50 YeArS OF CATTle grAZing experience ON THIS ALLOTMENT, Turning The CATTle ONTO The rANge APril 1 hAS CAused NO deTrimeNTAl effects.

You Are NOW ProPOSing TO chANge our Turn-ON DATe TO APril 15th This will increASe MY winTer Feed COSTS AT leAST $2000 ANNUALLY. This will ALSO increASe MY GATHering COST Per dAY OF rANge USe by over 16% AS You ProPOSe TO CUT MY SPring rANge by ONe SixTh. These FACTOrS will CAUSe FINANCIAL burdeNS MAKing MY COMMerCIAl COW-CALF OPerATION leSS STABle THAN iT is NOW AND Force me TO rethink The FINANCIAL FeASibiliTy OF GrAZing BLM LANDS.

8-2 This ALLOTMENT hAS Never been improved by PlANTing PALATAble GrASSes For livestock Feed. The ONLY improvemeNTS hAve been TWO AccideNTAl Fires, ONe WATer TANK For wild liFe, The SeeDing OF The Billy MOUNTAIN burN For erOSION CONTrOl, AND

Over 10 Miles OF DriFT Fence which I have built with MATeriAls Furnished by County range Funds And The B.L.M.. The PAST TWO winters have been Some OF the wettest on record AND our APril 1 Turn ON DATE hAS CAused No DAMAge TO This AllotMenT.

IF AS your PLAN indicATES New Seedings OF grASS will be eSTABlished in AreAS OF concern, AND These AreAS could be dAMAged by CATTle use I would be willing To co-operate on FencinG ProJecTS TO KeeP The CATTle From dAMAging These AreAS,

For These reASONS I AM AdMANTly OPPosed TO being cut out OF one SixTh OF MY SPring rANge AllotMenT when There hAS been No dAMAge IN over 50 yeArS use OF This AllotMenT.

This iS Also conTRAdictory TO The ComPrehensive use PlAN.

Please donT MANAge US OFF The rANge.

Sincerely

Philip R. Krouse
Krouse Ranch Inc.

Responses to Letter No. 8

8-1 Grazing dates are flexible and may vary from year to year depending on weather and plant growth. Soils in different parts of the EIS area also influence turnout dates. Footnote 1 to Table C-1 (page 62 of the DEIS) states that turnout dates may vary by 2 weeks depending on annual weather conditions. April 15 is a target date and could be adjusted on an annual basis for proper resource management. In drier years, April 1 may be feasible.

8-2 Allotment 203 has not been identified for any reduction in AUMs or cattle numbers under the preferred alternative.

Wildlife Management Institute

Suite 725, 1101 14th Street, N.W., Washington, D.C. 20005 • 202/371-1808

DANIEL A. POOLE
President
L. R. JAHN
Vice-President
L. L. WILLIAMSON
Secretary
WESLEY M. DIXON, Jr.
Board Chairman

December 16, 1983

District Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97504

Dear Sir:

The Wildlife Management Institute is pleased to comment on MEDFORD GRAZING MANAGEMENT PLAN, ENVIRONMENTAL IMPACT STATEMENT, Oregon.

9-1 One question that has not been clearly stated or answered is on land status. How much of the District is in Section 15 leases; how much in grazing District permits?

In general, the plan is better for wildlife than many other BLM plans we have reviewed recently, primarily because 44 percent of the new AUMs will be allocated to wildlife and because big game allocations provide for a 10 percent population increase.

Direct subsidy to the ranchers is smaller than in many plans--but it still represents a drain on the Treasury to accomplish tasks that could be accomplished by reductions in grazing use. For example (page 2) of $1,004,000 in development costs, 56.3 percent can be allocated to livestock ($565,252). This will produce 7,776 new livestock AUM at an average cost of $72 per AUM. The 105 leasees will receive an average subsidy of $5,383 each, although the average active preference is only 164 AUM per leasee. It is also noteworthy that only 6 percent of the lessees forage requirement is furnished by BLM land.

Interest at 8 percent on each new livestock AUM ($72 x .08) is $5.76. Grazing fees are only $1.40 per AUM leaving a continuing annual subsidy of $4.36 a year for each AUM at this most modest interest rate.

9-2 On page 22 there are 1,327 acres of wet meadows in poor condition, yet the preferred alternative makes no provision for improvement.

On page 36 only 4,789 acres of cut-over land are to be seeded for wildlife and livestock (1½ percent of possible). We believe this should be increased.

9-3 On page 38, impacts to wildlife should include a discussion of thermal cover.

9-4 On page 43, a full discussion of impacts to cavity-using species must be included. What level of populations is planned? The Oregon Department of Fish and Wildlife has a goal of 60 percent of optimum levels.

These remarks have been coordinated with William B. Morse, the Institute's Western Representative.

Sincerely,

Daniel A. Poole

Daniel A. Poole
President

DAP:msm

Responses to Letter No. 9

9-1 All allotments in the EIS area are grazed under lease in accordance with Section 15 of the Taylor Grazing Act.

9-2 See responses to 1-3 and 1-4.

9-3 See responses to 1-6 and 1-7.

9-4 BLM's goal is to strive for a maintenance of at least 60 percent of optimum levels for cavity dwellers. See response to 1-9.

Mr. Joe Knotts, Chairman
Rogue Group Sierra Club
P.O. Box 1023
Ashland, OR 97520
December 19, 1983

Mr. Hugh Shera
District Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97504

Dear Mr. Shera:

Below are comments, questions, and suggestions regarding the Medford Grazing Management Draft Environmental Impact Statement. These comments were generated by a cross section of Sierra Club members and reflect the Club's concern for the wise management of all natural resources.

The following list is not a thorough compilation of the apparent deficiencies of the Draft EIS, due to the time and other limitations upon a strictly volunteer organization. However, these are the most important points regarding its adequacy and should be addressed in the document's final form. We would appreciate your thorough and impartial consideration of the following concerns.

10-1 1. What are the maximum or worst case impacts which will be allowed to occur under each alternative? Are these (in part) the predicted trends listed in Tables C-1, G-1, and G-2? If so, this should be expressly stated; if not, further definition of impacts is necessary, as the text is vague in this regard.

10-2 2. Analysis of herbicide use and impacts is clearly inadequate, particularly in view of public concern and recent court decisions. Please specify anticipated herbicide use under each of the alternatives, as well as expected actual impacts, including worst case impacts.

10-3 3. How is each alternative affected by changes in funding levels? How will these changes affect the impacts? Unlike many projects where failure to receive project funds results in less environmental impact, failure to receive funds in this case could result in increased damage to the environment due to decreased ability to monitor. Therefore, please specify the changes which might be anticipated in AUMs and environmental impacts, together with the relative changes among the four listed alternatives at different

funding levels. For example, what difference would differing funding levels have on grazing damage, the need or inability to construct fences, the need or inability to enforce regulations, etc.?

10-4 4. Specifically, what species of vegetation does the BLM hope to encourage under these alternatives? If these are introduced species, how will this affect the native flora and fauna? How will this affect the long-term productivity of the affected sites?

10-5 5. Table 1-2 shows impacts on "significant" resources ranging from -L to +M. This would be much clearer if it could be represented as a plus or minus change in percent from the present condition. Such terms as "low," "medium," and "high" are extremely vague and would be extremely difficult to monitor performance.

10-6 6. The analysis of the relationship between grazing and timber resources is vague. Why does the BLM spray cut-over timberland with herbicides to kill grass, and also seed grass on these same cut-over timberlands?

Forest types in Southwestern Oregon are classified as "severe" (Franklin and Dyrness, 1973); the conclusion that "seeding and livestock grazing on moderate sites would not conflict with forestry objectives" (EIS p.47) would seem to be of limited value if the majority of the sites are classified as severe. While there may be little direct impact from grazing upon tree seedlings, the indirect effects of vegetation, particularly grasses, on seedling survival is well-documented and is the stated reason for much BLM herbicide use. These considerations are not adequately discussed in the Draft EIS.

10-7 7. Why is streamside riparian habitat (Table G-1) on many streams allowed to continue a downward trend from already poor condition under the preferred alternative? This occurs on portions of Jenny, Green Mountain, and Spencer Creeks, and to a lesser extent on other creeks. Is this continued habitat destruction detrimental to the Jenny Creek sucker? Should preservation of the habitat of this potentially endangered fish species be a priority?

10-8 8. The cost/benefit economic analysis is meaningless. It gives no indication of how values were derived, what variables were used, nor can it account for incommensurable values. Please include additional data in the Final EIS.

10-9 9. An important part of range management is flexibility in grazing systems. Are the grazing systems proposed in Table C-1 to remain static or will they change as conditions warrant?

10. Appendix D states that if evaluation of forage supports an increase in grazing use, such use may be granted. The document only implies, however, that livestock use would be reduced if resource objectives (presumably those in Tables C-1, G-1, and G-2) were not being achieved. Reduction in livestock use as a means of achieving resource objectives should be expressly stated, as should the resource objectives themselves.

10-10 11. Why are there only 100 acres of exclusion proposed for Alternatives 1, 2, and 3? Many of the potential areas for exclusion described in the text of the proposed action Alternative 4 (p. 6) should reasonably be considered for exclusion under any alternative. This raises the more basic question of whether the stated four alternatives have not been so developed so as to make the final decision a foregone conslusion based upon a "least worst" analysis. There is significant basis in the Draft EIS for a mixture of Alternatives 3 and 4 that would, for example, substantially decrease adverse impacts upon the riparian habitats mentioned in paragraph 7 above, and upon wildlife with relatively minor impacts upon grazing. Therefore,

10-11 please address what advantages might be obtained by a "blending" of Alternatives 3 and 4.

12. The Sierra Club supports the designation of Eight Dollar Mountain and Table Rocks areas as ACECs; they should be excluded from grazing in all alternatives because of their unique and fragile botanical features.

The Sierra Club appreciates the opportunity to participate in the planning process and looks forward to working with your organization in the future.

Any questions regarding this letter or Sierra Club policy may be addressed to myself at the above address.

Sincerely yours,

Joe Knotts

Joe Knotts, Chairman
Rogue Group Sierra Club

JK/MAW/dmg

Responses to Letter No. 10

10-1 The section on environmental consequences forms the scientific and analytical basis for comparison of the alternatives. Adverse impacts identified are those expected to occur if the alternative were implemented. Where impacts are uncertain, maximum foreseeable impacts are identified by statement of what "could" occur.

10-2 Appendix D (page 64 of the DEIS) identified design features applicable to herbicide use. In accordance with CEQ regulations (40 CFR 1502.21), BLM's environmental impact statements specifically addressing vegetative management with herbicides are incorporated by reference (USDI, BLM 1978d and 1983b). Acres of brush control, by alternative, are shown in Table 1-1 (page 2 of the DEIS). Further, impacts of herbicide use are specifically identified in the DEIS on pages 38, 39, and 47.

10-3 For the purpose of analysis, the assumption was made that personnel and funds would be made available for implementing any alternative. Under any foreseeable funding level, an appropriate level of monitoring would be maintained.

10-4 One of BLM's objectives for range management is to encourage native species. For example, in the dry upland zone (see DEIS, pages 15 through 17), the dominant native species are California oatgrass, Idaho fescue, bluebunch wheatgrass, white oak, etc. Many of these species, except white oak, have been replaced by annual grasses and forbs. Many of the annual grasses are of European origin. Seed sources for native species are subject to availability. Present management is designed to favor native species. Vegetation project work would include the use of other grasses and forbs not ecologically native to the plant community, but would provide an increase in long-term productivity of the land. Existing stands of ecologically native species would not be disturbed or replaced with introduced species. The primary objective of improving the brushland areas would be to rejuvenate wedgeleaf ceanothus by fire or mechanical methods in the dry upland zone. This species is a fire-evolved plant and requires burning to maintain its health and vigor, in an early condition or seral stage. In the oak woodland areas, the primary objective is to thin the white oaks, leaving approximately 10 percent canopy cover which would approximate natural conditions. Past fires and their control within the past 40 years have allowed the white oaks to increase to the point where forage production has been reduced to approximately 1/2 to 3/4 of site potential.

10-5 The terms high, medium, and low refer to the degree of change of beneficial or adverse impacts. For example, in the case of wildlife populations in the table, +L for elk under the preferred alternative means elk populations would increase by a low or slight amount. These qualitative terms were used when actual numbers could not be accurately predicted.

10-6 Seeding palatable grass-legume mixes on cut-over forested sites has been successful in northeast Oregon. Several studies (see references cited in the DEIS) have shown that seeding palatable species on cut-over forest sites and subsequent grazing has resulted in increased tree growth and survival compared to similar logged areas where native species were allowed to increase and be grazed by livestock. One such study conducted over a 20-year period shows an increase in tree growth between 8 and 9 percent on seeded and grazed units. Seeded, palatable species grazed with livestock reduce moisture competition with trees. In addition, seedings reduce shrub growth and encourage uniform livestock utilization. Major grasses (blue wild rye, Elymus glaucus; California fescue, Festuca Californica) that increase after logging are not favored by big game or livestock, and therefore establishment of them results in greater competition for moisture with trees. Herbicides have been used in the past to reduce grass that competes for soil moisture. Oregon State University, in conjunction with the Medford District of Bureau of Land Management, is initiating research to determine the affects of grass-legume seedings on cut-over forested sites grazed with livestock. The research would compare seeded and grazed units with units sprayed with herbicides, and with controls where native species are grazed, to determine tree growth and survival.

10-7 Habitat protection for the Jenny Creek sucker is a priority. The trend of Jenny Creek in allotment 108 would be static under Alternatives 1, 2, and 3. See text change for Table G-1 on page 73. In addition to some streamside riparian habitat exclusion under the preferred alternative, grazing systems would be used to improve an additional 108 miles of streamside habitat. The trend in habitat quality of all riparian zones listed in Table G-1 of the draft EIS is expected to improve to varying degrees. It is easier to reverse habitat trends on some streams than on others due to the many human-related activities and natural processes which influence the habitat. On segments of Green Mountain, Reese, Spencer, Clover, Cove and Antelope Creeks, the biologist felt that impacts from grazing would not be as great as in the past, but the condition trend would likely continue downward. In some cases, other causative factors (e.g. roads, logging) have contributed to the downward trend, although data indicated that grazing was a primary causative factor on these stream segments. Table 3-3 (page 40 of the draft EIS) shows expected condition and trend for riparian habitat on class 1 and 2 streams. About 5 percent indicate a continued downward trend. Livestock exclusion, riparian fencing, improved grazing systems and/or increased monitoring along these streams would be considered in the decision making process.

10-8 See text change for page 65.

10-9 Grazing systems would be changed if monitoring indicates that management objectives are not being achieved. See Appendix D (pages 63 and 64 of the DEIS).

10-10 Under Alternative 1, existing exclusions on 100 acres would be maintained. Under Alternatives 2 and 3, an additional 25 acres would be excluded adjacent to 4.75 miles of streams that have potential for significant improvement. (See Appendix G, Table G-2 of the draft EIS.) Grazing systems would also be utilized under these alternatives to improve an additional 108 miles of streamside riparian habitat. Alternative 4 calls for a significantly greater amount of exclusion (73,227 acres) to enhance non-livestock values. In addition to more fencing for riparian area protection under this alternative, livestock would be excluded from entire pastures or allotments where additional fencing would not be practical. Impacts to wildlife habitat in riparian areas are discussed on pages 39 and 40 of the draft EIS. See response to 3-3.

10-11 Blending features of the EIS alternatives analyzed is considered during development of the decision.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
Portland Field Office
727 N.E. 24th Avenue
Portland, Oregon 97232

Reference: BH/sb

December 13, 1983

Hugh R. Shera
District Manager
Bureau of Land Management
3040 Biddle Road
Medford, Oregon 97504

Dear Mr. Shera:

We have completed review of the Draft Environmental Impact Statement for the Medford Grazing Mangement Program. The draft statement provides a good general description of the planning unit and possible impacts to fish and wildlife resources. We generally support alternative 3 but feel greater emphasis should be placed on improving riparian and semi-wet meadow habitat such as stated in alternative 4. We feel such emphasis will provide a preferred alternative.

Sincerely yours,

Russell D. Peterson

Russell D. Peterson
Field Supervisor

cc:
ARD-HR
EC/DC

MAZAMA

Mazamas

Nesika Klatawa Tahalk

December 17, 1983

Medford District, BLM
3040 Biddle Road
Medford, Oregon 97504

Attention: Mr. Hugh R. Shera, District Manager

Re: Medford Grazing Management Program, EIS

Dear Mr. Shera:

We, the Mazamas, are a Portland based outdoor club of 2600 members who use the public domain for many of our activities such as hiking, backpacking and whitewater rafting. Our primary reason for responding to this grazing management plan is our concern for the long range protection of public land base, its water resources and the preservation of diversity of plants and animals.

With this in mind, our support is for Alternative 4 with its emphasis on non-livestock values. Even this alternative provides grazing at the 70% level of present. We also feel that this alternative more closely meets the requirements of the 1976 Federal Land Policy and Management Act which calls for combination of uses including but not limited to recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historic values.

We support the high level of riparian protection in this alternative which should improve both the long range quality and quantity of water. This will also reduce erosion and improve wildlife habitat.

With a reduced grazing level, it would seem that more two and three pasture rest and rotation grazing could be done which would help to maintain plant diversity.

We do object to the proposed conversion of some of the Oak woodlands to mostly grass with scattered trees for several reasons including the economics. We doubt that the return to the government by the low grazing fees would even begin to cover the costs of conversion. Also the plant diversity will be reduced and the number of available trees to cavity dependent species would be reduced.

Nine-O-Nine Northwest Nineteenth Avenue - Portland, Oregon 97209 - Telephone (503) 227-2345

We also like the fact that the Table Rock and Eight Dollar Mountain Areas of Critical Environmental Concern would be enhanced under Alternative 4. We also appreciate the statement that no Areas of Critical Environmental Concern would be impacted by any of the alternatives.

Thank you for this opportunity to express our views.

Very truly yours,

P. J. Oberlander

P. J. Oberlander, Chairman
Mazama Conservation Committee

12/26/83

District Manager
Bureau of Land Management

Dear Mr. Shera:

In regard to the Medford Mangmnt Program, I would like to commend you & your staff on the tremendous amount of work that has been done I agree with the thought behind it all, but concerning Allot #117 Cowle where I run I really hate to see more fences put in. If I could work with your people maybe we could get along with less fences. With the problem of getting all my work done I just don't feel I have time to take on more work.

I do feel that we must do everything we can to coopertate with each other. I have had a good relation

Butte Falls, Oregon
Dec. 29-83

In regards to the land use plans you have proposed for the people consideration Plan #2 is the best for everyone involved I think.

This takes all the resources in consideration

The grazing and wildlife should go together because they have to compete against on another.

Timber production and grazing can be used together as have been proven by large timber companies.

I think if you take these three resources the others will fall in line with the proper management.

Hope you will select #2 Plan.

Yours Truly,
B. F. L. Edmondson
P.O. Box 32.
Butte Falls
Oregon.

with the Range stuff in the past and want to continue. I also want to continue running cattle on B.L.M. and know that times and conditions do change, but I somehow get gumby taking on more work if I can't see it is really going to do some real good. We have such a blowdown situation up there, so that means more logging, and that means the cattle are going to be more stirred up. If we could wait until this logging gets settled down maybe we could accomplish more. Thank You for inviting the stockmen to write and express their feelings.

Sincerely
Klamal Stanley

Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

In reply refer to: SJ

December 28, 1983

Medford District Office
Bureau of Land Management
U.S. Department of the Interior
3040 Biddle Road
Medford, Oregon 97504

Gentlemen:

At your request, we have reviewed the Medford Grazing Management Draft Environmental Impact Statement (EIS). Your proposed grazing program should have no effect on Bonneville Power Administration's existing or proposed transmission facilities. We offer the following suggestions to assist you in the preparation of the final EIS.

15-1 In the sections of the EIS which discuss water quality and quantity, your conclusions would be strengthened if you could quantify potential changes and add literature citations or other source references. Quantities would not have to be exact; you could show a possible range of numbers, such as:

> Under alternative 2, runoff would change slightly, by ( ) to ( ) percent.

Citations could refer to supporting work available in appendixes or in-house documents or to reports you have prepared for similar projects. Also, you could link your statements to the monitoring studies which are mentioned in the EIS. Sometimes the basis for a statement or conclusion might be professional judgment and experience. For example:

> This conclusion is based on a report by ( ) for a similar study area.
>
> . . . based on monitoring of a similar project by BLM in 19( ).
>
> . . . based on best professional judgment.

I hope you will find these suggestions helpful. Please contact me if you have any questions.

Sincerely,

Nicholas J. Stas

for Anthony R. Morrell
Environmental Manager

Response to Letter No. 15

15-1 Throughout the EIS, quantification was used where possible and applicable references were cited. See response to 10-5.

December 26, 1983

Mr. Hugh Shera
District Manager
Bureau of Land Management
3040 Biddle Road
Medford, OR 97501

Dear Hugh,

The Jackson County Stockmens Assn prefers and supports the adoption of option number 3 of the Medford Grazing Management Program(EIS) dated September, 1983. We believe this option will best accomplish our desire for the improvement and restoration of the rangelands and place a balanced emphasis on other resource values. We feel a decision in favor of option 3 and prompt action to reach its goals will have a very desireable effect not only on the cattle grazing industry, but also on the general economy of the area, the wildlife that inhabit these lands, and the overall esthetics of the land.

We are truely pleased by the propect of close cooperation between your staff and Oregon State University's Rangeland Department. Through this cooperative research, we see a good chance for the development of the skills and methods necessary to improve not only forage production but perhaps also to improve the timber resource and to lessen the need for chemical control of competing plants. We view the goal to improve the rangelands in this area to be of major importance and in the best interests of the general public as well as our local cattle industry. In respect to this, we want to assure you that you will have our most active interest and participation toward achieving this goal. We hope you will consider consulting with us on a regular basis as this program evolves in the coming years. We can see down the road where, through your efforts, practices will be developed that will help us to improve our own lands. Thank you for your consideration of our comments.

Sincerely,

Larry Cauble
President
Jackson County Stockmens Association

ST Ranch
1485 Brownsboro-
Meridian Road
Eagle Point, OR 97524

December 26, 1983

Mr. Hugh Shera
District Manager
Bureau of Land Management
Medford, OR 97501

Dear Hugh,

I am pleased to respond in favor of Option Number 3 contained in the Medford Grazing Management Program (EIS). I have for many years attempted to draw the attention of the cattle grazing industry, the land managing agencies, and the general public to the need for a program to improve range conditions and the many potential benefits to be derived from such a program. In my view, the opportunity to produce and utilize quality forage from marginal lands is great and will have a tremendous impact on this nations ability to supply food at a reasonable cost. With the participation of the Oregon State University rangeland staff in the necessary research and the dedication to rangeland improvement I have seen exhibited by the Bureau of Land Management staff involved, I am convinced the proposed range improvement program can be accomplished with great success.

With the implementation of Option 3, which I view as a well balanced and carefully considered program, incorporating the best aspects of the multiple use concept, Southern Oregon will be on its way to gaining the knowledge and skills needed to increase not only the productivity of federally owned lands but also the thousands of acres of similar privately owned land. The adoption of Option 3 by your office will start us all on the path to a very desirable goal.

Sincerely,

Gordon Stanley

8600 S.W. Leahy Road
Portland, Oregon 97225
December 29, 1983

Bureau of Land Management
Medford District
3040 Biddle Road
Medford, Oregon 97504

Subject: Medford Grazing Management Program

Attention: Hugh R. Shera, District Manager

Dear Sir:

My support is for Alternative 4, emphasis on non-livestock values. I feal this more nearly meets the requirements of the 1976 Federal Land Policy and Management Act. It is a more balanced use of the resources and provides for longer range values such as plant and animal diversity.

Even this Alternative provides grazing at 70% of present. Hopefully this reduction would reduce the tax payers subsidy to this industry. I particularly object to converting some of the Oak woodlands to mostly grass with a few trees. I would expect that the costs to we taxpayers will be much more than the grazing fees collected on the addidional allotments. Also this reduces number of trees available to cavity dependent species and also reduce plant diversity.

Also this Alternative would enhance the Eight Dollar Mtn. and Table Rocks Special Areas which I like.

Very truly yours,

Bob Powne

Bob Powne

PS: I know about some or your Special Areas (ACECs) but I do not know where King Mtn Rock Garden, Foots Creek and Woodcock Bog are. Could you mark them on a map and send it to me.

December 27, 1983

District Manager
Bureau of Land Management
3040 Biddle Rd.
Medford, Oregon

Dear Sirs,

I have several comments on the EIS for the 10-year Medford Grazing Management Program.

I do not favor herbicide use for any reason on public lands.

I do not favor thinning by any method of the oak-woodlands to improve rangelands for cattle grazing.

I do not think enough emphasis is put on just how badly cattle damage wildlife habitat. They are especially damaging to the most sensitive streamside areas. I would like to see greatly decreased amounts of cattle on public lands.

Also, I feel the fees charged cattlemen are too low.

I would like to see alternative #4 be placed into effect for the 10-year Medford Grazing Management program, for reasons of wildlife habitat improvement.

Sincerely,

Jo Bigman

Jo Bigman
405 Schieffelin
Gold Hill, Oregon
97525

TEXT CHANGES

Page 7, Table 1-2. See revised table.

Page 26, first column, third paragraph. Delete spotted frog from the second sentence.

Page 26, second column, fourth paragraph. Change the number 1,149,000 to 1,156,300.

Page 29, third paragraph. Revise as follows: Wildlife-related recreation activity based on public land habitat in the EIS area accounted for $2,400,000 in local personal income and 108 jobs in 1982. Timber production, mining, and other recreational activities were also public land uses.

Page 42, second column, first paragraph. Add: In some areas, significant increases in big game (deer and elk) populations would occur due to implementation of range improvements and habitat manipulation.

Page 45, first column, second and third full paragraphs. Change to read: Long-term increases in big game populations under Alternatives 3 and 4 are expected to lead to corresponding increases in hunter use. In some areas, range improvements and habitat manipulation would lead to significant long-term localized increases in big game populations and associated hunter use. Under the preferred alternative, for example, deer and elk hunting is expected to increase during the decade by 14 percent within the EIS area.

Projected total visitor use to 1990, by alternative, is shown below for the Medford EIS area:

Alternative	1990 Estimated Recreation Visitation to Public Lands
1	1,198,000
2	1,198,000
3	1,211,000
4	1,225,900

Under Alternatives 1 and 2, projected use would increase about 4 percent over existing levels due to increasing recreation demand on public lands. Increases shown under Alternatives 3 and 4 are due primarily to expected area-wide impacts to wildlife species populations and associated fishing and hunting success.

Page 48, first column, first paragraph, first sentence. Change to read: The economic impacts are expressed in terms of the effects on dependence on public forage, on ranch property values, and on local income and employment from grazing activity, wildlife-related recreation, and the construction of range improvements.

Page 48, second column, second and third paragraphs. Change to read: The long-term effects of the alternatives on personal income and employment in Jackson and Klamath Counties are shown in Table 3-8. Changes related to land use activities not affected by the alternatives are not included in the table. The effects related to grazing activity were estimated on the assumption that available forage would be fully utilized.

Local personal income and employment would be increased under all alternatives. Under Alternative 4 the livestock industry would experience minor losses in income and employment.

Page 49, Table 3-8. See revised table.

Page 55. Add reference to Table D-2, Results of Rangeland Investment Analysis By Allotment.

Page 63, second column, third full paragraph. After the first sentence add: As agreed to in Amendment NO. 1 to the Memorandum of Understanding between the Oregon Department of Environmental Quality (DEQ) and the BLM, the BLM would meet the substantive requirements of the best management practices identified by the Oregon DEQ for range and grazing activities on federal lands.

Page 65. Revise as follows:

Benefit/Cost Analysis (Alternative 3)

A preliminary benefit/cost analysis was conducted for Alternative 3, Preferred Alternative, and has since been revised; as follows:

Allotment	B/C Ratio
001	1.0
024	1.8
031	2.0
038	3.2
106	2.5
107	2.3
110	1.4
115	2.5
117	2.9
203	1.1
206	2.2

Benefits were estimated as the increase in value of the resource outputs on which market price or analogous economic value could be placed. Livestock forage was valued at the private grazing land lease (rental) rate for Oregon reported by USDA Economic Research Service. Recreational activity values are based on those prescribed for national forest planning in USFS Region 6. Benefits and costs were discounted at 7.875 percent. The results of the analysis for each allotment are shown in Table D-2, Results of Rangeland Investment Analysis By Allotment. A final analysis will be conducted prior to the decision, and the results will be published in the Rangeland Program Summary (Record of Decision).

Page 73. In Table G-1, change the three entries for portions of Jenny Creek (totaling 1.8 miles) in allotment 108 to indicate static trend under Alternatives 1, 2, and 3.

Page 75. In Table G-2, delete the four columns showing grazing systems. Proper grazing systems, by alternative and stream, are shown in Table G-1 (pages 72 through 74 of the DEIS).

Table 1-2 Summary Comparison of Long-Term Impacts of the Alternatives

Significant Resource	Existing Situation	Alt.1 No Action	Alt.2 Emphasize Livestock	Alt.3 Preferred Alternative	Alt.4 Emphasize Non-livestock
Water					
Runoff		NC	NC	NC	NC
Fecal coliforms		NC	NC	+L	+L
Sediment yield		NC	NC	+L	+L
Vegetation					
Ecological Condition (68,041 Acres)					
Late	2%	2%	5%	8%	5%
Middle	28%	28%	59%	43%	45%
Early	70%	70%	36%	49%	50%
Forage Condition Coniferous Forest (329,014 Acres)					
Good	1%	1%	2%	2%	1%
Fair	9%	13%	20%	16%	22%
Poor	42%	38%	32%	34%	29%
Unknown	48%	48%	48%	48%	48%
Range Trend (68,041 Acres)					
Up	14%	14%	66%	68%	67%
Static	70%	70%	23%	20%	22%
Down	8%	8%	1%	1%	1%
Unknown	8%	8%	8%	8%	8%
Long Term Forage Production (AUMs)	132,543	131,998	155,548	147,507	145,309
Streamside Riparian Vegetation Trend (104.25 Miles Total)					
Increasing	24%	24%	30%	58%	78%
Static	62%	62%	64%	37%	22%
Decreasing	14%	14%	6%	5%	0%
Wildlife Populations					
Deer		-L	-L	+L	+M
Elk		-L	-M	+L	+M
Small mammals		-L	NC	NC	+M
Cavity dependent species		NC	-M	-L	-L
Upland game birds		NC	-L	+L	+M
Other birds		-L	NC	+L	+M
Reptiles		-L	NC	NC	+M
Amphibians		-L	NC	+L	+M
Fish		-L	NC	+L	+L
Soils					
Streambank Erosion (104 Stream Miles)					
Decreasing		24%	30%	58%	78%
Static		62%	64%	37%	22%
Increasing		14%	6%	5%	0%
Wild Horses (Numbers)	35	50	50	50	50
Recreation					
Long term visitor use (000)	1,156	1,198	1,198	1,211	1,226
Visual Resources (Contrast)		NC	-L	-L	-L
Special Areas		NC	NC	NC	+L
Socioeconomics[2]					
Socal personal income ($000)	1,671,000	+202	+589	+461	+264
Local employment (jobs)	77,100	+7	+18	+16	+12
Lessees with loss over 10 percent of requirements (number)	0	0	0	0	2

Note: NC = no change, + = beneficial, - = adverse, L = low, M = medium, H = high

[1] Species composition based on key woody and herbaceous species.

[2] For socioeconomic, the existing situation represents total income and jobs in Jackson and Klamath Counties. Impacts are shown as long-term changes from the existing situation.

Table 3-8 Effects on Local Personal Income and Employment Due to Long-Term Changes in Land Use Activities[1] (Income in thousands of dollars)

Land Use Activity	Alternative 1	Alternative 2	Alternative 3	Alternative 4
CHANGE IN LOCAL PERSONAL INCOME				
Grazing[2]	+$100.2	+$487.5	+$269.2	- $ 30.7
Big game hunting[3]	+ 29.5	+ 29.5	+ 78.7	+ 123.0
Small game hunting	+ 4.4	+ 4.4	+ 11.0	+ 35.9
Fishing	+ 67.9	+ 67.9	+ 101.8	+ 135.7
Total	+ 202.0	+ 589.3	+ 460.7	+ 263.9
CHANGE IN LOCAL EMPLOYMENT				
Grazing[4]	+ 3	+ 14	+ 8	- 1
Big game hunting[3]	+ 1	+ 1	+ 4	+ 5
Small game hunting	+ *	+ *	+ *	+ 2
Fishing	+ 3	+ 3	+ 5	+ 6
Total	+ 7	+ 18	+ 16	+ 12

* Less than one-half

1 Based on changes from 1982 activity levels. Changes in grazing based on 1982 active use. Effects estimated by factors derived from interindustry model as shown in Appendix H. Changes in activities which were the same for all the alternatives, such as developed site and dispersed use recreation, were omitted.

2 The net effects on personal income in the livestock industry would be: +$21,600, +$105,100, +$58,100, and - $6,600 for the four alternatives respectively.

3 Includes deer, elk, and bear hunting.

4 The net effects on livestock industry employment would be: 1, 3, 2, and 0 for the four alternatives respectively.

Table D-2, Results of Rangeland Investment Analysis by Allotment

STATE: OR
DISTRICT:110 ALLOT NO: 0001 PROGRAM IDENT:AL3
RESOURCE AREA:115 ALLOT NAME:LOST-CREEK BASE YEAR:1982

EFFICIENCY TEST RESULTS

EFFICIENCY RATIOS			DISCOUNTED VALUES				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	1.6 / 1	2.0 / 1	$76754	$196631	$119876	$98607	$21270
7.875%	1.0 / 1	1.1 / 1	$-1604	$104571	$106175	$94328	$11847
10.000%	.8 / 1	.9 / 1	$-21610	$79790	$101400	$92133	$9267

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	350	333	1050	$7.70	$56180
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	1087	1033	1190	$15.12	$23361
ELK HUNTING	HDs	938	891	1026	$15.12	$20049
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	243	243	255	$11.52	$1433
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	52	49	60	$7.56	$839
INLAND ANADROMOUS ANGLING	ADs	175	166	177	$28.08	$2709
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
7.7%	8.7%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$103442	$51005	$154447
COST/ADD AUM:	$3.06	$1.51	$4.57

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$81596	$0	$0	$81596	$100	$0	$81696
2	$21140	$0	$0	$21140	$100	$0	$21240
3	$236	$0	$0	$236	$100	$0	$336
4	$235	$0	$0	$235	$100	$0	$335
5	$235	$0	$0	$235	$100	$0	$335
TOTAL	$103442	$0	$0	$103442	$500	$0	$103942

COSTS TO OTHERS
CONSTRUCTION TOT.: $0

AVERAGE ANNUAL COST

		EXISTING PROGRAM		ALTERNATIVE PROGRAM	
OPER.&MAINTENANCE:	$1020	SIMONS	-RANGE CONSER	SIMONS	-RANGE CONSER
ANNUALIZED REPLMT:	$0	XX	-XX	XX	-XX
LIVESTOCK MANGMNT:	$0	XX	-WILDLIFE BIO	XX	-WILDLIFE BIO
TOTAL ANNUAL COST:	$1020	XX	-XX	XX	-XX

DATA PREPARED BY

STATE: OR
DISTRICT:110 ALLOT NO: 0024 PROGRAM IDENT:AL3
RESOURCE AREA:115 ALLOT NAME:BIG-BUTTE BASE YEAR:1982

EFFICIENCY TEST RESULTS

EFFICIENCY RATIOS			DISCOUNTED VALUES				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	3.0 / 1	3.6 / 1	$303171	$455331	$152160	$125284	$26877
7.875%	1.8 / 1	2.1 / 1	$109147	$241070	$131923	$117173	$14750
10.000%	1.5 / 1	1.6 / 1	$58858	$183410	$124552	$113113	$11439

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	1663	1580	3257	$7.70	$126805
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	1562	1484	1777	$15.12	$44211
ELK HUNTING	HDs	2189	2080	2514	$15.12	$65680
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	453	453	467	$11.52	$1577
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	12	11	16	$7.56	$342
INLAND ANADROMOUS ANGLING	ADs	60	57	66	$28.08	$2455
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
14.8%	15.8%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$134761	$65235	$199996
COST/ADD AUM:	$1.72	$.83	$2.55

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$59545	$0	$0	$59545	$0	$0	$59545
2	$35458	$0	$0	$35458	$0	$0	$35458
3	$37808	$0	$0	$37808	$0	$0	$37808
4	$975	$0	$0	$975	$0	$0	$975
5	$975	$0	$0	$975	$0	$0	$975
TOTAL	$134761	$0	$0	$134761	$0	$0	$134761

COSTS TO OTHERS
CONSTRUCTION TOT.: $0

AVERAGE ANNUAL COST

		EXISTING PROGRAM		ALTERNATIVE PROGRAM	
OPER.&MAINTENANCE:	$1305	SIMONS	-RANGE CONSER	SIMONS	-RANGE CONSER
ANNUALIZED REPLMT:	$0	XX	-XX	XX	-XX
LIVESTOCK MANGMNT:	$0	XX	-WILDLIFE BIO	XX	-WILDLIFE BIO
TOTAL ANNUAL COST:	$1305	XX	-XX	XX	-XX

DATA PREPARED BY

PAGE THREE RANGELAND INVESTMENT ANALYSIS SUMMARY DATE:03/14/84
TIME:15.840

STATE: OR
DISTRICT:110 ALLOT NO: 0031 PROGRAM IDENT:AL3
RESOURCE AREA:115 ALLOT NAME:SUMMIT-PRAIRIE BASE YEAR:1982

EFFICIENCY TEST RESULTS

DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	3.4 / 1	4.7 / 1	$388500	$551704	$163204	$118339	$44865
7.875%	2.0 / 1	2.6 / 1	$145282	$289156	$143875	$112854	$31021
10.000%	1.6 / 1	2.0 / 1	$81707	$218810	$137103	$110066	$27037

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	1158	1005	2965	$7.70	$142203
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	1879	1785	2166	$15.12	$57568
ELK HUNTING	HDs	2189	2079	2515	$15.12	$65963
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	402	382	452	$11.52	$7272
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	51	48	73	$7.56	$1934
INLAND ANADROMOUS ANGLING	ADs	965	917	974	$28.08	$14215
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
15.5%	18.1%	100.6%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$124619	$86916	$211535
COST/ADD AUM:	$1.38	$.96	$2.34

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$98109	$0	$0	$98109	$0	$0	$98109
2	$19198	$0	$0	$19198	$0	$0	$19198
3	$2438	$0	$0	$2438	$0	$0	$2438
4	$2437	$0	$0	$2437	$0	$0	$2437
5	$2437	$0	$0	$2437	$0	$0	$2437
TOTAL	$124619	$0	$0	$124619	$0	$0	$124619

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $13056
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $1437
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $1437

DATA PREPARED BY

	EXISTING PROGRAM		ALTERNATIVE PROGRAM	
	SIMONS	-RANGE CONSER	SIMONS	-RANGE CONSER
	XX	-XX	XX	-XX
	XX	-WILDLIFE BIO	XX	-WILDLIFE BIO
	XX	-XX	XX	-XX

PAGE THREE RANGELAND INVESTMENT ANALYSIS SUMMARY DATE:03/14/84
TIME:15.864

STATE: OR
DISTRICT:110 ALLOT NO: 0038 PROGRAM IDENT:AL3
RESOURCE AREA:115 ALLOT NAME:CROWFOOT BASE YEAR:1982

EFFICIENCY TEST RESULTS

DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	5.5 / 1	6.7 / 1	$252379	$309072	$56693	$46249	$10444
7.875%	3.2 / 1	3.6 / 1	$106193	$155559	$49367	$43673	$5693
10.000%	2.5 / 1	2.7 / 1	$68243	$115014	$46771	$42373	$4398

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	365	329	747	$7.70	$26399
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	558	502	1080	$15.12	$77158
ELK HUNTING	HDs	188	169	563	$15.12	$52003
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	0	0	0	$11.52	$0
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	0	0	0	$7.56	$0
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
21.0%	21.8%	***** %

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$49224	$25490	$74714
COST/ADD AUM:	$2.66	$1.38	$4.04

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$28628	$0	$0	$28628	$0	$0	$28628
2	$12023	$0	$0	$12023	$0	$0	$12023
3	$8273	$0	$0	$8273	$0	$0	$8273
4	$150	$0	$0	$150	$0	$0	$150
5	$150	$0	$0	$150	$0	$0	$150
TOTAL	$49224	$0	$0	$49224	$0	$0	$49224

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $510
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $510

DATA PREPARED BY

	EXISTING PROGRAM		ALTERNATIVE PROGRAM	
	SIMONS	-RANGE CONSER	SIMONS	-RANGE CONSER
	XX	-XX	XX	-XX
	XX	-WILDLIFE BIO	XX	-WILDLIFE BIO
	XX	-XX	XX	-XX

PAGE THREE — RANGELAND INVESTMENT ANALYSIS SUMMARY — DATE:03/14/84

TIME:15.893

STATE: OR
DISTRICT:MEDFORD — ALLOT NO: 0106 — PROGRAM IDENT:AL3
RESOURCE AREA:114 — ALLOT NAME:DEADWOOD — BASE YEAR:1982

EFFICIENCY TEST RESULTS

DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	4.2 / 1	4.7 / 1	$99930	$130690	$30759	$27925	$2834
7.875%	2.5 / 1	2.6 / 1	$42036	$70416	$28381	$26842	$1539
10.000%	2.0 / 1	2.1 / 1	$26590	$54059	$27469	$26282	$1186

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	1032	1032	1776	$7.70	$61049
LIVESTOCK FORAGE(SEASONAL)	AUM	1032	1032	1776	$7.70	$61049
DEER HUNTING	HDs	769	769	831	$15.12	$8305
ELK HUNTING	HDs	62	156	156	$15.12	$0
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	177	177	181	$11.52	$500
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	13	13	20	$7.56	$561
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
18.8%	19.2%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$29138	$6945	$36083
COST/ADD AUM:	$.82	$.19	$1.01

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$26638	$0	$0	$26638	$13	$0	$26651
2	$2500	$0	$0	$2500	$13	$0	$2513
3	$0	$0	$0	$0	$13	$0	$13
4	$0	$0	$0	$0	$13	$0	$13
5	$0	$0	$0	$0	$13	$0	$13
TOTAL	$29138	$0	$0	$29138	$63	$0	$29201

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $139
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $139

DATA PREPARED BY

EXISTING PROGRAM		ALTERNATIVE PROGRAM	
POWERS	-RANGE CONSER	POWERS	-RANGE CONSER
XX	-XX	XX	-XX
SITTER	-WILDLIFE BIO	SITTER	-WILDLIFE BIO
XX	-XX	XX	-XX

PAGE THREE — RANGELAND INVESTMENT ANALYSIS SUMMARY — DATE:03/14/84

TIME:15.917

STATE: OR
DISTRICT:MEDFORD — ALLOT NO: 0107 — PROGRAM IDENT:AL3
RESOURCE AREA:114 — ALLOT NAME:DIXIE — BASE YEAR:1982

EFFICIENCY TEST RESULTS

DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	4.2 / 1	4.5 / 1	$131368	$172749	$41381	$38508	$2873
7.875%	2.3 / 1	2.4 / 1	$50231	$88692	$38461	$36885	$1576
10.000%	1.8 / 1	1.8 / 1	$29081	$66354	$37273	$36050	$1223

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	415	415	774	$7.70	$29452
LIVESTOCK FORAGE(SEASONAL)	AUM	415	415	774	$7.70	$29452
DEER HUNTING	HDs	296	296	431	$15.12	$15261
ELK HUNTING	HDs	313	313	626	$15.12	$41969
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	101	101	105	$11.52	$500
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	41	41	60	$7.56	$1511
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
16.2%	16.5%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$40337	$6985	$47322
COST/ADD AUM:	$2.34	$.41	$2.75

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$32837	$0	$0	$32837	$25	$0	$32862
2	$7500	$0	$0	$7500	$25	$0	$7525
3	$0	$0	$0	$0	$25	$0	$25
4	$0	$0	$0	$0	$25	$0	$25
5	$0	$0	$0	$0	$25	$0	$25
TOTAL	$40337	$0	$0	$40337	$125	$0	$40462

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $140
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $140

DATA PREPARED BY

EXISTING PROGRAM		ALTERNATIVE PROGRAM	
POWERS	-RANGE CONSER	POWERS	-RANGE CONSER
XX	-XX	XX	-XX
SITTER	-WILDLIFE BIO	SITTER	-WILDLIFE BIO
XX	-XX	XX	-XX

PAGE THREE RANGELAND INVESTMENT ANALYSIS SUMMARY DATE:03/14/84
TIME:15.958

STATE: OR
DISTRICT:MEDFORD ALLOT NO: 0110 PROGRAM IDENT:AL1
RESOURCE AREA:KLAMATH ALLOT NAME:SODA-MTN. BASE YEAR:1982

EFFICIENCY TEST RESULTS

- - -EFFICIENCY RATIOS- - -			- - - - - - - - - DISCOUNTED VALUES - - - - - - -				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	- - - - COST - - - - TOTAL	BLM	OTHERS
4.000%	2.5 / 1	9.6 / 1	$370608	$623987	$253379	$64724	$188655
7.875%	1.4 / 1	5.5 / 1	$87130	$318201	$231071	$58135	$172935
10.000%	1.1 / 1	4.3 / 1	$16794	$236914	$220121	$54986	$165135

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	4011	2711	4475	$7.70	$139187
LIVESTOCK FORAGE(SEASONAL)	AUM	4011	2711	4475	$7.70	$139187
DEER HUNTING	HDs	3325	3159	3879	$15.12	$96547
ELK HUNTING	HDs	313	282	938	$15.12	$72308
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	705	705	733	$11.52	$3574
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	114	114	197	$7.56	$6585
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
10.7%	37.3%	13.8%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$72925	$207230	$280155
COST/ADD AUM:	$.87	$2.47	$3.34

BLM BUDGET COSTS FOR FIRST FIVE YEARS

	NEW FACILITIES & MANAGEMENT				EXISTING FACILITIES		TOTAL
YEAR	CONST.	O. & M.	MGT.	TOTAL	O. & M.	REPLCMT.	COST
1	$24000	$0	$0	$24000	$0	$0	$24000
2	$6925	$0	$0	$6925	$0	$0	$6925
3	$0	$0	$0	$0	$0	$0	$0
4	$22000	$0	$0	$22000	$0	$0	$22000
5	$20000	$0	$0	$20000	$0	$0	$20000
TOTAL	$72925	$0	$0	$72925	$0	$0	$72925

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.:$207230
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $0
ANNUALIZED REPLNT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $0

DATA PREPARED BY

EXISTING PROGRAM		ALTERNATIVE PROGRAM	
POWERS	-RANGE CONSER	POWERS	-RANGE CONSER
XX	-XX	XX	-XX
SITTER	-WILDLIFE BIO	SITTER	-WILDLIFE BIO
XX	-XX	XX	-XX

PAGE THREE RANGELAND INVESTMENT ANALYSIS SUMMARY DATE:03/14/84
TIME:15.980

STATE: OR
DISTRICT:MEDFORD ALLOT NO: 0115 PROGRAM IDENT:AL1
RESOURCE AREA:KLAMATH ALLOT NAME:KEENE-CREEK BASE YEAR:1982

EFFICIENCY TEST RESULTS

- - -EFFICIENCY RATIOS- - -			- - - - - - - - - DISCOUNTED VALUES - - - - - - -				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	- - - - COST - - - - TOTAL	BLM	OTHERS
4.000%	4.1 / 1	4.6 / 1	$245490	$325035	$79545	$70875	$8670
7.875%	2.5 / 1	2.6 / 1	$103079	$173044	$69965	$66171	$3793
10.000%	2.0 / 1	2.1 / 1	$65537	$131945	$66408	$63812	$2595

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	3544	1772	3607	$7.70	$145901
LIVESTOCK FORAGE(SEASONAL)	AUM	3544	1772	3607	$7.70	$145901
DEER HUNTING	HDs	2281	2166	2309	$15.12	$19156
ELK HUNTING	HDs	206	196	238	$15.12	$5625
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	530	530	538	$11.52	$1058
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	12	12	28	$7.56	$1305
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
19.7%	19.9%	*****

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$76356	$25580	$101936
COST/ADD AUM:	$.87	$.29	$1.17

BLM BUDGET COSTS FOR FIRST FIVE YEARS

	NEW FACILITIES & MANAGEMENT				EXISTING FACILITIES		TOTAL
YEAR	CONST.	O. & M.	MGT.	TOTAL	O. & M.	REPLCMT.	COST
1	$25978	$0	$0	$25978	$25	$0	$26003
2	$31228	$0	$0	$31228	$25	$0	$31253
3	$19150	$0	$0	$19150	$25	$0	$19175
4	$0	$0	$0	$0	$25	$0	$25
5	$0	$0	$0	$0	$25	$0	$25
TOTAL	$76356	$0	$0	$76356	$125	$0	$76481

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0
- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $512
ANNUALIZED REPLNT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $512

DATA PREPARED BY

EXISTING PROGRAM		ALTERNATIVE PROGRAM	
POWERS	-RANGE CONSER	POWERS	-RANGE CONSER
XX	-XX	XX	-XX
SITTER	-WILDLIFE BIO	SITTER	-WILDLIFE BIO
XX	-XX	XX	-XX

PAGE THREE — RANGELAND INVESTMENT ANALYSIS SUMMARY — DATE:03/14/84 — TIME:16.009

STATE: OR
DISTRICT:MEDFORD — ALLOT NO: 0117 — PROGRAM IDENT:AL1
RESOURCE AREA:KLAMATH — ALLOT NAME:CONDE-CREEK — BASE YEAR:1982

EFFICIENCY TEST RESULTS

EFFICIENCY RATIOS			DISCOUNTED VALUES				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	4.9 / 1	5.4 / 1	$125162	$157101	$31939	$29302	$2638
7.875%	2.9 / 1	3.0 / 1	$52959	$81431	$28473	$27108	$1365
10.000%	2.3 / 1	2.4 / 1	$34183	$61221	$27038	$26015	$1023

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	592	592	889	$7.70	$24428
LIVESTOCK FORAGE(SEASONAL)	AUM	592	592	889	$7.70	$24428
DEER HUNTING	HDs	373	373	476	$15.12	$13840
ELK HUNTING	HDs	438	438	751	$15.12	$41940
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	101	101	103	$11.52	$265
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	8	8	20	$7.56	$958
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
21.4%	21.7%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$31880	$6720	$38600
COST/ADD AUM:	$2.23	$.47	$2.71

BLM BUDGET COSTS FOR FIRST FIVE YEARS

	NEW FACILITIES & MANAGEMENT				EXISTING FACILITIES		TOTAL
YEAR	CONST.	O. & M.	MGT.	TOTAL	O. & M.	REPLCMT.	COST
1	$7480	$0	$0	$7480	$25	$0	$7505
2	$11750	$0	$0	$11750	$25	$0	$11775
3	$12650	$0	$0	$12650	$25	$0	$12675
4	$0	$0	$0	$0	$25	$0	$25
5	$0	$0	$0	$0	$25	$0	$25
TOTAL	$31880	$0	$0	$31880	$125	$0	$32005

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0

- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $134
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $134

DATA PREPARED BY

	EXISTING PROGRAM		ALTERNATIVE PROGRAM	
	POWERS	-RANGE CONSER	POWERS	-RANGE CONSER
	XX	-XX	XX	-XX
	SITTER	-WILDLIFE BIO	SITTER	-WILDLIFE BIO
	XX	-XX	XX	-XX

PAGE THREE — RANGELAND INVESTMENT ANALYSIS SUMMARY — DATE:03/14/84 — TIME:16.052

STATE: OR
DISTRICT:110 — ALLOT NO: 0203 — PROGRAM IDENT:AL3
RESOURCE AREA:116 — ALLOT NAME:BILLY-SUGARLOAF — BASE YEAR:1982

EFFICIENCY TEST RESULTS

EFFICIENCY RATIOS			DISCOUNTED VALUES				
DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	COST TOTAL	COST BLM	COST OTHERS
4.000%	1.8 / 1	1.9 / 1	$65130	$142258	$77127	$74894	$2233
7.875%	1.1 / 1	1.1 / 1	$6500	$76925	$70425	$69252	$1173
10.000%	.9 / 1	.9 / 1	$-8145	$59205	$67349	$66462	$888

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	534	507	948	$7.70	$35808
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	687	653	860	$15.12	$31962
ELK HUNTING	HDs	0	0	0	$15.12	$0
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	161	153	224	$11.52	$9155
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	0	0	0	$7.56	$0
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
8.7%	8.8%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$81600	$5620	$87220
COST/ADD AUM:	$3.87	$.27	$4.14

BLM BUDGET COSTS FOR FIRST FIVE YEARS

	NEW FACILITIES & MANAGEMENT				EXISTING FACILITIES		TOTAL
YEAR	CONST.	O. & M.	MGT.	TOTAL	O. & M.	REPLCMT.	COST
1	$27855	$0	$0	$27855	$0	$0	$27855
2	$23745	$0	$0	$23745	$0	$0	$23745
3	$15000	$0	$0	$15000	$0	$0	$15000
4	$15000	$0	$0	$15000	$0	$0	$15000
5	$0	$0	$0	$0	$0	$0	$0
TOTAL	$81600	$0	$0	$81600	$0	$0	$81600

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0

- -AVERAGE ANNUAL COST- -
OPER.&MAINTENANCE: $112
ANNUALIZED REPLMT: $0
LIVESTOCK MANGMNT: $0
TOTAL ANNUAL COST: $112

DATA PREPARED BY

	EXISTING PROGRAM		ALTERNATIVE PROGRAM	
	XX	-RANGE CONSER	XX	-RANGE CONSER
	XX	-XX	XX	-XX
	ARNOLD	-WILDLIFE BIO	ARNOLD	-WILDLIFE BIO
	XX	-XX	XX	-XX

PAGE THREE — RANGELAND INVESTMENT ANALYSIS SUMMARY — DATE:03/14/84

TIME:16.240

STATE: OR
DISTRICT:110 — ALLOT NO: 0206 — PROGRAM IDENT:AL3
RESOURCE AREA:116 — ALLOT NAME:LOWER-BIG-APPLE — BASE YEAR:1982

EFFICIENCY TEST RESULTS

DISCOUNT RATE	BENEFIT/ ALL COST	BENEFIT/ BLM COST	PRESENT NET VALUE(B-C)	TOTAL BENEFIT	TOTAL COST	BLM COST	OTHERS
4.000%	3.8 / 1	3.9 / 1	$203077	$276101	$73025	$70692	$2333
7.875%	2.2 / 1	2.2 / 1	$78445	$144873	$66428	$65164	$1264
10.000%	1.7 / 1	1.8 / 1	$46152	$109567	$63415	$62441	$974

ANNUAL YIELD, UNIT VALUES, AND PRESENT VALUES(7.875%)

OUTPUT CATEGORY	UNIT	BASE YIELD	SUSTAINED YIELD W/O	SUSTAINED YIELD WITH	UNIT VALUES	PRESENT VALUE OF CHANGE
LIVESTOCK FORAGE(AVERAGE)	AUM	930	883	1514	$7.70	$48283
LIVESTOCK FORAGE(SEASONAL)	AUM	0	0	0	$7.70	$0
DEER HUNTING	HDs	3331	2998	3581	$15.12	$85069
ELK HUNTING	HDs	0	0	0	$15.12	$0
OTHER BIG GAME HUNTING	HDs	0	0	0	$15.12	$0
WATERFOWL HUNTING	HDs	0	0	0	$11.52	$0
UPLAND & SMALL GAME	HDs	783	705	812	$11.52	$11521
WARM WATER ANGLING	ADs	0	0	0	$7.56	$0
COLD WATER ANGLING	ADs	0	0	0	$7.56	$0
INLAND ANADROMOUS ANGLING	ADs	0	0	0	$28.08	$0
DEVELOPED SITE RECREATION	RDs	0	0	0	$4.32	$0
DISPERSED USE RECREATION	RDs	0	0	0	$4.32	$0
NONGAME WILDLIFE VIEWING	RDs	0	0	0	$10.44	$0
SOIL AND WATER	$'s	$0	$0	$0	$1.00	$0

INTERNAL RATE OF RETURN

TOTAL COST	BLM COST	OTHER COST
16.8%	17.0%	*****%

50-YEAR UNDISCOUNTED EXPENDITURES

	BLM	OTHER	TOTAL
EXPENDITURES:	$77300	$5730	$83030
COST/ADD AUM:	$2.60	$.19	$2.80

BLM BUDGET COSTS FOR FIRST FIVE YEARS

YEAR	NEW FACILITIES & MANAGEMENT CONST.	O. & M.	MGT.	TOTAL	EXISTING FACILITIES O. & M.	REPLCMT.	TOTAL COST
1	$26000	$0	$0	$26000	$0	$0	$26000
2	$20250	$0	$0	$20250	$0	$0	$20250
3	$14250	$0	$0	$14250	$0	$0	$14250
4	$15000	$0	$0	$15000	$0	$0	$15000
5	$1800	$0	$0	$1800	$0	$0	$1800
TOTAL	$77300	$0	$0	$77300	$0	$0	$77300

- - -COSTS TO OTHERS- - -
CONSTRUCTION TOT.: $0

DATA PREPARED BY

- -AVERAGE ANNUAL COST- -		EXISTING PROGRAM		ALTERNATIVE PROGRAM	
OPER.&MAINTENANCE:	$115	XX	-RANGE CONSER	XX	-RANGE CONSER
ANNUALIZED REPLMT:	$0	XX	-XX	XX	-XX
LIVESTOCK MANGMNT:	$0	ARNOLD	-WILDLIFE BIO	ARNOLD	-WILDLIFE BIO
TOTAL ANNUAL COST:	$115	XX	-XX	XX	-XX

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT OFFICE
3040 BIDDLE ROAD
MEDFORD, OREGON 97504

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

BULK MAIL
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PERMIT NO. G-76